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ABSTRACT

Intended to assist local vocational education administrators in needs assessment and planning procedures for mainstreaming handicapped students, this manual presents a five-step process: (1) needs assessment and barrier identification (includes instruction in the nominal group technique process); (2), goal, objective, and strategy development (a general planning model is presented along with instructions on formation of a local planning committee); (3) criteria and process for strategy selection (use of the Force Field Analysis technique is presented); (4) planning activities for strategy implementation; and (5) planning for evaluation (types of evaluation, measurements, and preparation of an evaluation plan are discussed). Included in the appendixes are an instructional pamphlet which gives an overview of mainstreaming (history, legislation, definition) and lists of resources: organizations, institutions, and agencies; instructional materials (names, addresses, and brief description given); and planning materials (names, addresses, and brief description given). (The report of the project which developed and produced this manual is available as Volume I, ED 018 406.) (JH)

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FINAL REPORT

Project No. 498AH70191
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NEEDS ASSESSMENT PROCEDURE: MAINSTREAMING HANDICAPPED

Volume II

A Manual for Vocational Education Administrators

May 1978

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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AUTHORS' ABSTRACT

This manual is the result of a project to design and develop a needs assessment and planning procedure to assist local vocational education administrators in implementation of the mainstreaming approach for serving handicapped students in vocational education.

The procedure is conceptually based on a program planning and evaluation model with four components: (1) needs assessment and barriers identification, (2) development of strategies to meet needs and overcome barriers, (3) implementation of planned strategies, and (4) evaluation. The procedure features (a) the nominal group technique process in the needs assessment and barriers identification phase, and (b) the Force Field Analysis technique in the development and selection of alternative strategies. Specific instructions are provided for the formation, composition and utilization of a local planning committee to assist the local vocational education administrator in planning for and undertaking the implementation of a mainstreaming approach. A list of available resources is also provided.

Local administrators will find the manual to be a useful planning tool in developing mainstream programs for the handicapped in vocational education.

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Final Report

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The research reported herein was performed pursuant to a contract with the U.S. Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

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PREFACE

In the past, vocational education programs for the handicapped have been limited both by the extent of programming available and by the type of programs which have served the handicapped. There have been insufficient numbers of available programs, and of those that have been offered, a majority have been segregated programs, serving the handicapped in settings separated from regular programs. Recent federal and state legislation mandates that free, appropriate, public education be provided for the handicapped in the least restrictive environment. As a result of this legislation, the "mainstreaming" of handicapped students in vocational education (the integration, where appropriate, of handicapped youngsters into regular vocational education programs) will receive much more attention. Implementation of the mainstreaming approach, however, will require careful planning and skillful administration. This project has developed a procedure to assist local administrators in implementing mainstreaming.

The project would not have been possible without the assistance and encouragement of a number of individuals and agencies. The cooperation and support of the Division of Vocational Education, North Carolina State Department of Public Instruction, is gratefully acknowledged. Dr. Charles J. Law, Jr., Division Director, and Mr. Jim Lunsford, then the Division's Chief Consultant for the Disadvantaged and Handicapped, provided support and encouragement in the initial development of the project.

The assistance of Dr. James L. Paul, University of North Carolina at Chapel Hill, who served as a consultant to the project was most helpful. Dr. Paul assisted in the early conceptualization and planning of the project, and in reviewing the draft final report. Ms. Genevieve Ortman, a doctoral student in special education at UNC-CH, provided consultation and technical assistance in conducting a special survey of local directors of special education. The survey examined the issue of cooperation between special education and vocational education.

Dr. Stuart E. Schwartz, University of Florida, was kind enough to permit us to include as an appendix one of five booklets in the series, "Another Step Forward," developed by the University of Florida Department of Special Education. This illustrated booklet provides an excellent overview of mainstreaming.

Dr. Jack A. Wilson in the Research Branch, Division of Research and Demonstration, Bureau of Occupational and Adult Education, U.S. Office of Education, served as the Project Officer. His support and assistance throughout the project period are acknowledged.

Our associates at System Sciences, Inc. must also be mentioned for their helpful support. Dr. Edgar A. Parsons provided project management support and reviewed final draft reports. Ms. Doris M. Lange provided efficient and competent assistance in the preparation of the final project report.

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I. INTRODUCTION AND OVERVIEW

Recent developments in federal and state legislation require that free, appropriate public education be provided for all handicapped students. Public Law 94-142, The Education of All Handicapped Children Act of 1975, and the Equal Educational Opportunities Act passed by the 1977 North Carolina General Assembly further stipulate that individual handicapped students be provided free and appropriate public education in the least restrictive educational setting.

Title II of the Education Amendments of 1976, P.L. 94-482, the most recent vocational education legislation, expands and re-emphasizes the responsibility of vocational education to serve handicapped students. A minimum of 10% of the funds allocated to states is required to be spent on vocational education programs for the handicapped. Further, states are required to match these funds on a dollar for dollar basis so that state and local funds are also available to support vocational education programs for the handicapped. Additionally and importantly, it is a requirement of Public Law 94-482 that state plans for the administration of vocational education programs be entirely consistent with the provisions of Public Law 94-142, The Education of All Handicapped Children Act. This means that vocational education, like other areas of education, must be available to individual handicapped students in a form that is appropriate to their individual educational needs and in the least restrictive educational setting.

These requirements have encouraged many educators to consider "mainstreaming" as an approach for providing educational services to the handicapped. There has been much confusion among educators about the term mainstreaming. With respect to vocational education, mainstreaming refers to the integration of handicapped students, where appropriate, into regular vocational education programs. In addition, support services required to meet the individual educational needs of the student must be provided. Mainstreaming does not mean the wholesale dumping of handicapped

students into regular vocational education programs. Rather, the placement of handicapped students into vocational education programs must be consistent with the student's individualized education plan including provision of necessary support services.

Mainstreaming is both an important and a potentially dangerous educational innovation. It is important because it suggests full participation by handicapped students in the educational system. It is dangerous because without an understanding of the changes or the complexity of changes the innovation requires, it could nullify the recent advances made in providing educational services for handicapped children (Paul, Turnbull and Cruickshank, 1977).

Mainstreaming cannot be allowed to happen haphazardly. It requires careful planning, administration and organization of critical elements within the school or school system. In mainstreaming handicapped students into vocational education programs, the local vocational education administrator must be the key person for coordination and administration. This manual has been designed to assist you, the local vocational education administrator, in planning for and implementing the mainstreaming approach in your school system. The manual has been written in a personal style and in a straightforward manner to communicate a particular structured planning procedure in a very practical way.

A five step process is described which can assist you as you implement a program. The process is potentially useful, no matter what your present state of program development, ranging from an initial stage of not knowing where to begin to a point where objectives have been clearly understood and delineated and strategies for meeting the objectives have been developed, implemented and evaluated. The five steps in the process include: (1) needs assessment and barrier identification; (2) establishment of goals and objectives and development of strategies to meet needs and/or overcome barriers; (3) strategy selection procedures; (4) planning for strategy implementation; and (5) planning for evaluation. Examples are provided to illustrate each step in the process and to give you some idea of the type of information each step provides. In addition, materials

contained in the appendices to this report include: (1) an overview of mainstreaming which you can use to introduce the subject to staff and other personnel in your local area, and (2) available resources which you can use in implementing the strategies that you develop and select.

In addition to this manual, the reader is referred to Mainstreaming: A Practical Guide by Paul, Turnbull and Cruickshank (1977). This guide employs a similar methodological approach and contains complementary materials. In particular, it places more emphasis on systems dynamics within the school and the roles and reponsibilities of the principal, teachers, counselors and other school personnel.

We begin with the first of five steps, needs assessment and barrier identification.

II. NEEDS ASSESSMENT AND BARRIER IDENTIFICATION

To assess the needs which must be met and the barriers which must be overcome in your local situation if mainstreaming is to be implemented successfully, we recommend that a process called the nominal group technique (NGT) be employed.* The nominal group technique was derived from social-psychological studies of decision conferences, management science studies of aggregated group judgments, and social work studies of problems involving citizen participation and program planning. The nominal group technique is a structured group meeting which follows a prescribed sequence of problem solving steps. This particular technique was selected because it has many advantages over other types of interacting groups. One particularly valuable advantage of this procedure for the task at hand is the involvement and commitment of the key people in the school system in the perception and determination of problems. The nominal group technique process maximizes this type of staff involvement.

The nominal group technique process possesses a number of characteristics which facilitate decision-making performance: (1) there is consistency among decision-making groups; (2) the process provides for a balanced concern among social and emotional group maintenance roles and performance of task roles; social reinforcement and task accomplishment provide immediate feelings of reward to group members; (3) the silent, independent generation of ideas and the round-robin procedure for presenting ideas result in a high quantity of ideas; (4) search behavior is proactive, characterized by extended periods of generating and clarifying alternative dimensions of a problem; (5) members participate equally in generating information on the problem because of the structured process; and, (6) nominal group technique meetings tend to conclude with a perceived sense of closure, accomplishment, and interest in future phases of problem solving.

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* This section presents a summary of the nominal group process. For a more complete description of the process, the reader is referred to: Delbecq, A. L., A. H. Van de Ven and D. H. Gustafson. Group Techniques for Program Planning. Glenview IL: Scott, Foresman & Co., 1975.

The specific steps involved in conducting a nominal group technique meeting include: (1) silent generation of ideas in writing, (2) round-robin reporting from group members, (3) discussion of each recorded idea for clarification and evaluation, and (4) individual voting on priority ideas with the group decision being mathematically derived through rank ordering.

Using the Nominal Group Technique Process to Assess Needs and Identify Barriers to Mainstreaming

Your first activity is to determine who to involve in the needs assessment and barrier identification process. Depending upon the size of your school system and the number of high schools offering vocational education programs, you may want to involve all personnel within the school system who are related in some way to the vocational education program. Unless your system is fairly small, we recommend that you focus on selected personnel from one school faculty at a time for the NGT because individual schools have different characteristics and different staff interaction patterns. The school personnel who should be incorporated into the needs assessment and barrier identification meeting include the principal, vocational education teachers, special education teachers, guidance counselors, and other support personnel. At a minimum, your group should contain all personnel who will be affected by the mainstreaming approach and who will have some role in implementing the approach in vocational education programs.

Initially, you should provide your group with an overview of mainstreaming that includes legislative background, definitions and other issues related to mainstreaming handicapped students in regular vocational education programs. An overview of mainstreaming is provided in Appendix A. The overview can be used by itself, or with additional information incorporating particular circumstances of your school or school system. Providing such an overview will set the stage for your group to participate in the needs assessment and barrier identification process.

You must attend to a number of preliminary steps before the meeting. These include selecting and preparing the meeting room, providing the necessary supplies and composing an opening statement.

The major activities of the meeting will take place in small groups. You should choose a meeting room large enough to accommodate participants in groups of from five to nine members around individual tables. Be sure that there is enough space between tables so that noise and activity from one table will not interfere with work at the other tables.

You will need to provide the following supplies:

1) Flip-chart for each table
2) Roll of masking tape
3) A pack of 3 x 5 cards for each table
4) Felt pens for each table
5) Worksheet and pencil for each participant

The use of these various items will become apparent in the description of the nominal group technique meeting.

In your opening statement, you should provide a cordial and warm welcome, convey a sense of significance concerning the group's task, clarify the importance of each member's contribution, indicate the purpose of the meeting and suggest the implications that the work will have for the future. As suggested earlier, an overview of mainstreaming will provide each member with sufficient background information on the general problem to be addressed.

Depending on the number of participants and the number of small groups that you have, you may need several people to assist you, either as table leaders and recorders, or as recorders. You can provide process directions to several tables; however, if you decide on this approach, you will have to have a trained recorder at each of the tables. If you work with just one small group, you will need a trained table leader/recorder with each of the other groups.

For purposes of illustration, we shall focus on a single table of six or seven members with a leader who also serves as a recorder.

The first step in the nominal group technique process is the silent generation of ideas in writing. Present the question, called a nominal question, to the group in written form and read the question aloud to the group. Examples of questions that you may want to put before your group might be as follows:

> *What do you view as the major barriers to mainstreaming handicapped students in vocational education here at _____ school?*
>
> or
>
> *What do you view as priority needs which must be met if mainstreaming of handicapped students in vocational education here at _____ school is to be successful?*

The overview of mainstreaming provided at the outset of your meeting will set the stage for the introduction of either the question on major barriers or the question on priority needs. You may use either the priority needs question or the major barriers question with your group, or you may want to use both. However, using both questions will require two separate NGT exercises. Needs and barriers are directly related. As needs are met, barriers will be overcome; as barriers are overcome, needs will be reduced.

Step 1: Silent Generation of Ideas in Writing

After you have presented the nominal question and have read it aloud to your group, instruct the group to write their ideas on the provided worksheets. Direct the group to write their ideas in brief phrases or statements. Ask the group to work silently and independently. As leader of the group, you are a working participant and should also participate by writing down your ideas silently and independently. You may clarify the idea generation process that the group is to follow, but avoid making any clarifications that might direct the group or focus their attention unduly on a particular item or area.

The silent generation of ideas in writing should take approximately five minutes; it should not exceed ten minutes. Generally, five minutes is adequate time for generating a large number of useful and different ideas.

You can perform your role as group leader more effectively by being sure that you: (1) have presented the question in writing and have displayed it in full view of the group, (2) resist clarifying non-process related questions which might direct or impede the group, (3) serve as a model of good group behavior by writing in silence, and (4) sanction individuals who disrupt the silent independent activity

Step 2: Round-Robin Recording of Ideas

The second step of the nominal group technique process is to record the ideas of group members on a flip chart visible to the entire group. In this step, go around the table asking for one idea from one member at a time. Write each idea on the flip chart as it is suggested; proceed to ask for another idea from the next group member in turn. Your task during this step in the process is simply to record all of the ideas offered by group members on the flip chart, visibly displayed in front of the group. During the idea recording process, members should not discuss or defend their ideas. Time will be provided later for discussion and clarification of the items that are generated.

This step in the process provides for equal participation among group members in the presentation of ideas, increases problem-mindedness, helps to separate ideas from personalities, and provides a written record of the group's thinking. The written list is an important early group reward.

As the group leader, it is important for you to describe the procedures for this step clearly, to solicit ideas from the group members in brief words or phrases in a round-robin fashion, to communicate to the group that variations on a theme are desirable, and to record on the flip chart the suggested ideas as quickly as possible. Be sure to sanction any type of disruptive behavior that may occur during this step. An example of a disruptive behavior would be an individual trying to discuss ideas rather than simply list them; other distruptive behaviors would include arguing with ideas as they are presented, asking the leader to rule on duplications or engaging in side conversations.

Remember the goal of this step is a rapid, accurate list of ideas in brief words or phrases, recorded in writing on a flip chart in front of the entire group. This list will become the guide for further discussion; it provides a clear picture of the group's thinking--and is the group's product. Figure 1 presents two typical lists of ideas generated by a group in response to questions related to priority needs and major barriers to mainstreaming. The items listed under priority needs arose as the product of a group which addressed the needs question. The items listed under major barriers resulted as a product of a group that addressed the question of major barriers only. You cannot address the question of needs and the question of barriers in the same session; you must choose to address either needs or barriers, but not both at the same time.

Step 3: Serial Discussion for Clarification

The third step of the nominal group process is to discuss each of the ideas listed by the group. Serial discussion means addressing each idea listed on the flip chart in order, and allowing a short period of time for the discussion of that idea. As the leader of the group, you will point to item #1, read it aloud, and ask the group if there are any questions, statements of clarification, or statements of agreement and/or disagreement which members would like to make about that item. Allow a brief period of time for discussion, if there is any; after discussion, address attention to item #2, then to item #3, and so on. It is important to remember that the major objective of the discussion is to clarify, not to win arguments. Clarification will help other members understand the meaning of the brief words or phrases on the chart. Clarification is not restricted, however. It may include discussion of the logic or analysis behind an item as well as the relative importance placed on the item.

During this step, lobbying, aggressive interaction or disruptive argumentation should not be allowed to occur. The purpose of serial discussion is to enhance clarification but to minimize influence based on verbal prominence or status. The group leader should pace the discussion by not allowing discussion to unduly focus on any particular idea or to degenerate into argumentation.

Items Generated by a Question Related to Priority Needs
PRIORITY NEEDS
1) School personnel need to attend in-service workshops on vocational education
2) Class size needs to be reduced
3) Parents' knowledge of vocational education programs needs to be increased
4) Special instructional materials need to be provided
5) School placement personnel need to attend in-service workshops on vocational education
6) Diagnostic personnel need to be available
7) Curriculum development activities, particularly those which relate basic and daily living skills to vocational opportunties, need to be undertaken

Items Generated by a Question Related to Major Barriers
MAJOR BARRIERS
1) The lack of support personnel
2) Insufficient funds for purchasing needed equipment and materials,
3) The lack of resources in smaller school systems
4) Lack of teacher time
5) The restrictiveness of federal and state program guidelines on local flexibility in using funds
6) Lack of awareness among vocational education teachers of employment opportunities for handicapped students
7) Inadequate teacher preparation
8) Lack of accessible facilities

Fig. 1. Example Lists of Priority Needs and Major Barriers to Mainstreaming Generated by Two Separate Nominal Group Technique Process Meetings

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If there are differences of opinion on a particular item, the leader should allow both points of view to be aired before shifting group attention to a discussion of the next item. Differences of opinion will be accurately recorded in the voting procedure, a later step in the nominal group process.

The leader must attempt to balance discussion across all items, making sure that no item suffers from inadequate clarification due to time constraints. Some items may not need substantial clarification. Still, the leader should ask each member of the group if they have a clarifying comment or a question. Make sure that each person has an opportunity to comment on every item.

Individual members should not be required to clarify their own items. The leader should instruct the group members not to ask individuals to explain items unless the individual chooses to do so. Although most individuals will volunteer to clarify their own items, it should be established that clarification is a group task and not necessarily the responsibility of the person who suggested the item.

Step 4: Preliminary Voting on the Priority Needs or Major Barriers

The average nominal group process meeting will result in more than 12 items being suggested by each group during the idea generation phase. Through discussion and clarification, group members will come to understand the meanings of the items, the logic behind them and arguments for and against the importance of each. The next task is to determine the relative importance of individual items through a combination of individual judgments. In order to make this determination and in order to increase judgmental accuracy, you will have group members make individual judgments and express these judgments mathematically. Each member of the group should have in front of them five 3 x 5 index cards. Ask group members to select the five most important items from the entire list of needs or barriers on the flip chart. Members should write each of the five items on a separate 3 x 5 card.

The voting process is uncomplicated. After each group member has selected five needs or barriers and written each on a separate card, ask group members to choose the card on which the item they consider to be most important is written. Instruct members to write the number "5" in the lower righthand corner of the card and underline that number three times. Have group members turn the card they numbered over. Next, instruct them to look at the remaining four cards. Of the remaining four cards, have the group members select the card on which the least important item is written, write the number "1" in the lower righthand corner and underline that number three times. After turning that card over, have the group choose the most important item listed on the remaining three cards; rank this item number "4" and underline the number three times. Then, select the least important item of the remaining two cards, rank this item as number "2" and underline it. Instruct the group to write number "3" on the last card and underline the number. Figure 2 illustrates a sample index card.

The group should be given a short amount of time to reexamine their rankings before passing the cards to the leader. After collecting the cards the leader may shuffle them to preserve anonymity and insure that no individual's voting pattern can be identified. However, voting can be public, particularly if revoting is not contemplated. You should then

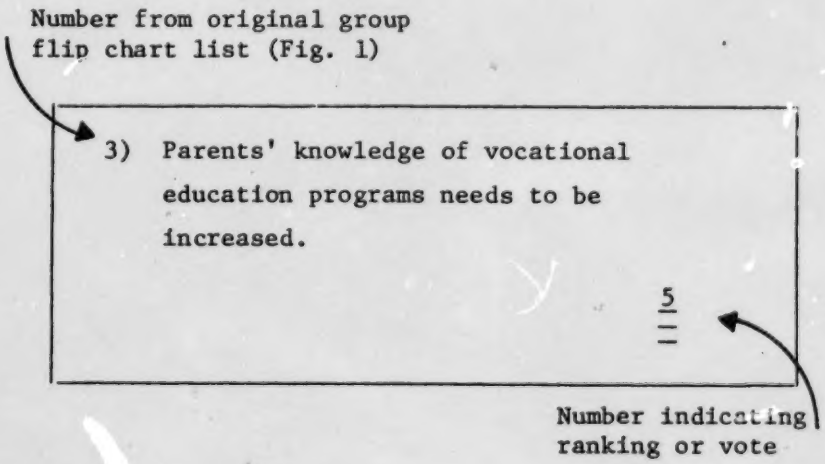
Number from original group flip chart list (Fig. 1)
3) Parents' knowledge of vocational education programs needs to be increased.
5
Number indicating ranking or vote

Fig. 2. Index Card Indicating Voting Process

make a balance sheet on the flip chart by numbering the lefthand side of the sheet in accordance with the number of items from the round-robin listing. Ask one member of the group to read each item number and the rank number from the collected stack of voting cards. With one group member reading and the leader recording, the preliminary vote is tallied as is shown in Fig. 3.

After you have recorded the number of each item and the ranks in the appropriate column, you are ready to analyze the data. First sum the ranks; next multiply the number of ranks per item times the sum of the ranks. The largest number in the sum of ranks multiplied by the number of times the item is ranked will indicate the highest priority need and/or major barrier identified by the group. The second largest number will identify the second priority need or the second major barrier, the third largest number the third priority, and so on. After tallying the votes, you should write the top five priorities on a separate sheet of paper in rank order, present this to the group, and seek confirmation or face validity from the group for the outcome of the process.

Item Number	Rank	Times Ranked	Sum of Ranks	No. of Ranks X Sum of Ranks	Priority
1	3,2,2,2,1	5	10	50	6
2	4,5,5,5	4	19	76	1
3	5,5,5,3	4	18	72	2
4	2,1,3,4,2	5	12	60	4
5	5,4,4,3	4	16	64	3
6	4,4,3,4	4	15	60	4
7	3,1,1,2	4	7	28	7
.					
.					
.					
.					
.					

Fig. 3. Tally Sheet for Recording Rankings and Calculating Priority Items

At this point, the nominal group technique process can be concluded. However, in instances where increased judgmental accuracy is desired or where the output of several small groups must be combined, two additional steps should be added. These are: (1) discussion of the preliminary vote and (2) revoting. In situations where you are working with only one group, discussion of the preliminary vote (Step 5) and final voting (Step 6) are conducted similar to Steps 3 and 4 described earlier. In this instance, you should help the group examine inconsistent voting patterns and provide an opportunity to discuss items which are perceived as receiving too many or too few votes. In Step 5, "Discussion of Preliminary Vote," you should define the discussion task as clarification rather than social pressure to get members of the group to change their minds. The goal of clarification also serves to insure that the discussion remains brief so as not to distort perceptions of items which are not discussed.

Step 6, "Final Voting," combines individual judgments into a group decision. The final vote determines the outcome of the meeting, provides a sense of closure and accomplishment, and documents the group's judgment. Voting follows the procedures followed in Step 4.

Steps 5 and 6 should also be used when you have had to split your school faculty or school system personnel into several small groups in order to conduct the nominal group process. For example, if your meeting included 20 personnel divided into two groups of 7 and one group of 6 individuals, then at the end of Step 4 you would have five priority needs or major barriers listed for each group, or three sets of statements.

Integration of the products of the thinking of these three groups can be accomplished through procedures similar to those identified in Steps 5 and 6 above. After the conclusion of Step 4, bring the members of the different groups together and compile the ranked output of the three groups into a single list of priority needs or a single list of major barriers. Following the compilation of the list, proceed with serial discussion of each item in order to clarify each item on the compiled list. While

conducting this serial discussion, duplicate items can be eliminated and/or regrouped as appropriate, thereby reducing the size of the overall list. In addition, discussions about each item as well as information about the preliminary voting permit the membership of the entire group to consider the importance of each item compared to the others. The group leader must insure that each item is discussed sufficiently to encompass all points of view; however, no items should be allowed to have excessive time.

After clarification and discussion of the items, the membership should be instructed to vote on the entire list following the procedure outlined in Step 4, as described earlier. As you will recall, this procedure called for each group member to select the five most important items from the list of items, and to write each of those items on a single 3" x 5" card. The items on the cards are then ranked with the most important item receiving a rank of 5 and the least important item receiving a rank of 1. The cards are collected and the votes are tallied on a tally sheet as depicted in Fig. 3. Calculation of the priority items can be accomplished through multiplication of the number of times the item was ranked by the sum of the ranks. The items with the highest overall scores are the most important items.

At the end of either Step 4 or Step 6, you have completed the nominal group technique process with the school personnel who will be involved in the implementation of the mainstreaming approach. At this point, the priority needs will have been assessed and the major barriers will have been identified. There will be concensus and agreement among the involved personnel about the problems as well as a sense of participant involvement from determining/identifying what problems exist. Once the needs have been assessed and the barriers identified, the next major step is the development of solutions or strategies to meet the needs and/or overcome the barriers.

III. GOAL, OBJECTIVE AND STRATEGY DEVELOPMENT

Once you have completed the nominal group technique and produced a single ranked list of either priority needs or major barriers, you must attend to designing strategies to meet the needs and/or overcome the barriers. This step in the planning process requires translating the information derived through needs and/or barriers assessment into planning language from which programs can be developed. Such translation requires analyzing each priority need or important barrier in terms of its components including: (a) who is the target population; (b) who does the need or barrier affect directly or indirectly other than the target population; (c) what factors impact on and/or are related to the need or barrier; (d) what would you like the end product to look like; (e) when would you like resolution to occur; (f) what activities might be useful in achieving the desired resolution; and (g) who can/should you involve in working toward resolution.

Through addressing these questions, you determine your project goals, develop and decide on specific strategies for implementation and judge project success. The next several sections of this planning manual discuss strategy development, strategy selection and strategy implementation. However, before discussing these topics, two general areas of concern deserve consideration: (a) the local planning committee and (b) the general planning model.

Local Planning Committee

Many benefits can be derived by establishing and using a local planning committee to assist you in the development of your school's or school system's approach to mainstreaming handicapped students in regular vocational education programs.

The local planning committee can be used to transform the assessed needs and identified barriers into goals and objectives as well as to assist in developing, selecting and implementing strategies that meet assessed needs and/or overcome identified barriers. The local planning committee also will help to insure that key school or school system

personnel,who will have major responsibilities for implementation of the mainstreaming approach, will be represented. Use of the local planning committee increases the degree of involvement and investment members have and will be willing to commit to the mainstreaming implementation.

In addition to yourself, the following school personnel in your school or school system should be considered for membership on the local planning committee: (1) the high school principal; (2) the director or coordinator of special education programs; (3) a representative of the Division of Vocational Rehabilitation, perhaps a local VR counselor; (4) a representative of the local Employment Security Office, preferably one who is particularly knowledgeable about employment opportunities for the handicapped; (5) a member of your local advisory council; (6) two regular vocational education instructors; (7) two special education instructors; (8) guidance counselors, preferably vocational guidance counselors if available; and (9) other school personnel whom you consider to be important to the mainstreaming program.

The suggested composition of the local planning committee should assure that all of the key personnel within the school or school system who will be centrally involved in the implementation of the mainstreaming program are represented.

You must remember that whether or not mainstreaming works as a legitimate response to the demand for educational services provided in the least restrictive setting may depend on (a) how it is introduced into the local school and (b) the circumstantial correlates existing there at the time of the introduction. If mainstreaming is interpreted as merely placing students back into regular classes with no attention to other factors, its outcome may differ from outcomes obtained through programs whose directors believe mainstreaming is something more than that. Implementation and outcomes created by administrator/teacher groups who request the right to mainstream children with special needs may be quite different from implementations and outcomes that result from a principal introducing the concept to teachers as something forced on them by the State Board of Education. In general, mainstreaming is a

system problem and raises many instructional, social and psychological questions. Its empirical consequences for handicapped students, for nonhandicapped students, and for teachers and other school personnel are not clear. Likewise, the conceptual, philosophical, organizational and programmatic consequences for vocational education and for special education have yet to be articulated. The legal rationale involving the rights of students to an education significantly and appropriately stops short of describing how that education can be provided.

The role of the local planning committee will be to provide planning and guide the implementation of the mainstreaming program, consistent with the needs assessed and barriers identified through the nominal group technique process.

As an additional caution, you should remember that changes inherent in fully operationalizing mainstreaming require redefining many of the roles and responsibilities of teachers, administrators and other school personnel. Such redefinition must address the broad issue of mainstreaming and the specific local issues derived as a result of the local implementation effort. By providing wide representation on the local planning committee, you will insure that all key groups within the school or school system have an opportunity for input. Further, you will insure that the redefinition of roles and responsibilities associated with the implementation of the mainstreaming approach will be communicated adequately to those within the system whose roles and responsibilities will be changed. Most importantly, the use of the local planning committee will give those who will be responsible for implementation a feeling of ownership of the plans and strategies that will be developed.

General Planning Model*

A general planning model is presented in Fig. 4. Take a few minutes to look this model over carefully. It contains all of the elements of a systematic planning process, all of which are interrelated. More specifically, you assess needs and/or identify the major barriers related to mainstreaming handicapped students in vocational education; next, you develop goals and objectives related to those needs and barriers followed by developing and selecting strategies to be implemented for purposes of accomplishing your objectives. Evaluation of the effectiveness of the strategies provides feedback information which will help you modify your strategies, adjust your goals and objectives, improve your resources and/or reduce your constraints. The model provides for a linear progression through the following steps:

1) Assessment of needs and/or identification of barriers;
2) Establishment of goals;
3) Determination of your constraints and resources;
4) Establishment of objectives;
5) Identification and/or generation of a number of alternative strategies;
6) Selection of a strategy or set of strategies after applying appropriate selection criteria;
7) Implementation of the strategy or strategies;
8) Evaluation of the effectiveness of the strategy or strategies;
9) Processing of the feedback information; and
10) Use of the feedback information to modify strategies, adjust goals and objectives, improve resources or reduce constraints.

Since the model provides a logical, systematic approach, it is best utilized by starting with the needs assessment and/or identification of barriers step and moving, step-by-step, through the planning process. In the previous chapter we discussed, in detail, a specific procedure for

* This model was adapted from: Gallagher, J. J., R. C. Surles and A. E. Hayes. Program Planning and Evaluation. Chapel Hill NC: Technical Assistance Development System, 1973.

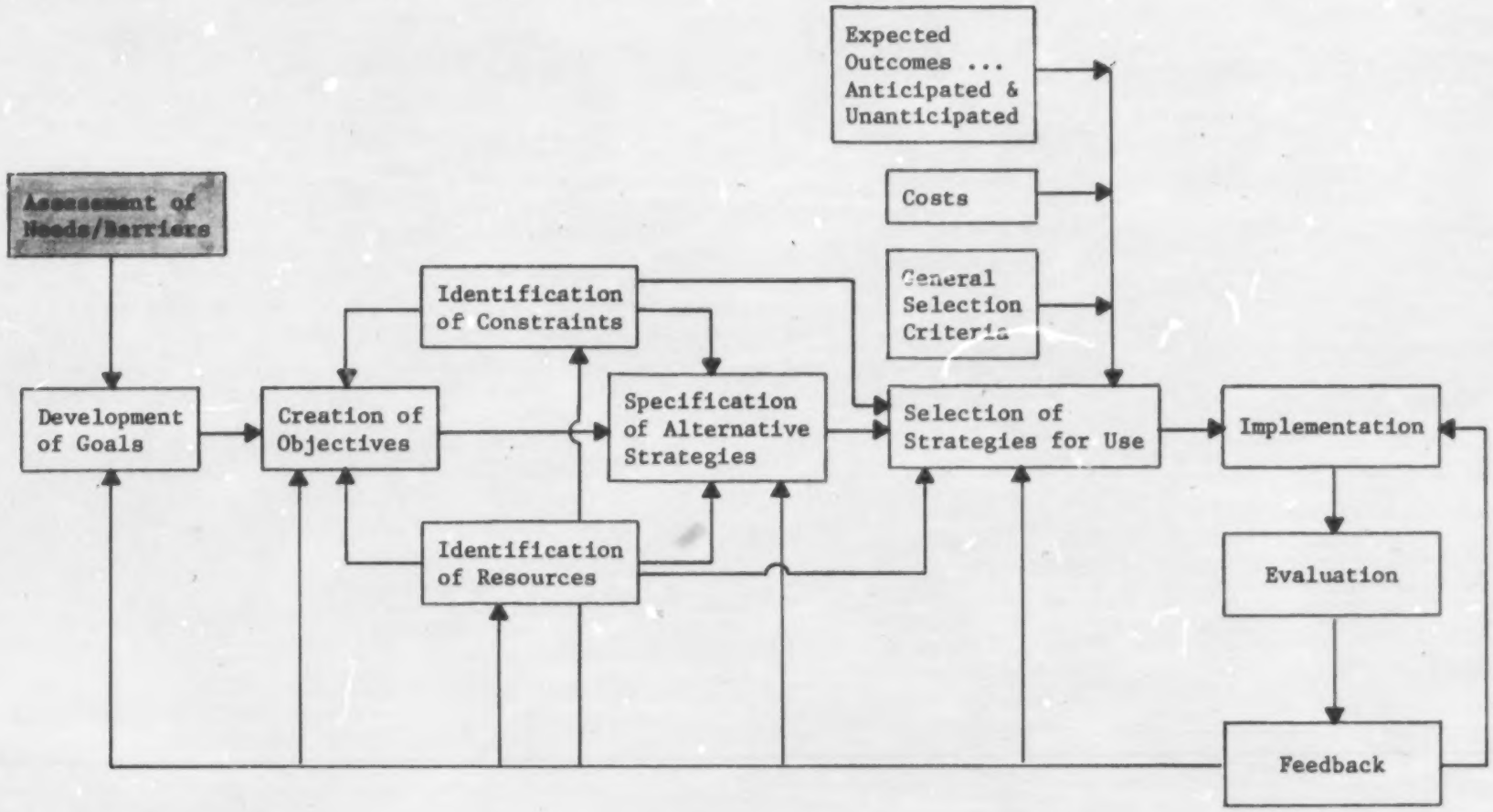

Fig. 4. A General Planning Model

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assessing the needs and/or identifying the barriers to successful implementation of the mainstreaming approach. Once you have assessed the needs and/or identified the barriers, the shaded box in Fig. 4, the next step in the planning process is to establish goals and objectives. This activity is followed by the development of alternative strategies designed to meet those objectives.

Goals and Objectives

Goals are written statements which reflect a general intention of what you want and expect to happen as a result of your program's efforts. Goal statements usually identify a target population and relate to a need or problem area which the target population shares. Goal statements are useful for both internal and external communication and are helpful, if not essential, in the process of evaluating the effectiveness of your program. Goal statements are helpful to internal communication because they are a written statement of an agreed upon direction or declaration of purpose to which you and other staff members will be committed. Goal statements thus provide a common ground of understanding to which staff can refer and from which staff can profit in planning, coordinating and implementing services.

Goal statements also facilitate external communication with consumers, with the general public, and with other persons to whom your program may be accountable. They are clearly articulated statements concerning what your program is about, and what you hope and anticipate your program will achieve.

Goals are related to objectives in that goals are general statements of intent, while objectives are more specific statements that specify anticipated outcomes in a manner that makes them measurable. In planning for the mainstreaming of handicapped students in regular vocational education programs, you should have only a few overall goals with no more than three or four outcome objectives for each goal. In evaluating your efforts, you may assume that if a positive evaluation of these specific objectives occurs, then your program is in the process of meeting overall goals.

An example of a goal statement related to mainstreaming follows:

> The vocational education program of _____ school or _____ school system, with the support of the special education program and other services, will provide appropriate vocational education experiences for handicapped students in the least restrictive educational settings for the purpose of improving student vocational skills and preparation for employment.

Writing goals and objectives is easily accomplished, if you are familiar with the needs and problems and if you have some general structure to follow in constructing your goals and objectives statements. Below is a sample structure for a goal statement:

The _____ through its
(title of your program)
_____ for _____
(program component) (whom - target group)
will _____ _____
(action verb) (what)
_____.
(for what general purpose)

Review the previously suggested goal statement pertaining to mainstreaming according to this sample structure. It includes all of the elements found in the sample structure. The title of the program and the specific program component are identified. An action verb is included; what is to be accomplished and for whom is indicated, and the general purpose is stated.

The following action verbs are examples of verbs that can be used in writing goal statements and that you may find helpful.

Verbs commonly used with goals	
provide	enable
promote	change
increase	offer
decrease	train

As noted earlier, objectives are more specific statements of anticipated outcomes and render the outcomes measurable. They follow from goal statements. Below is a sample structure for an objective:

To _____ _____
(action verb) (what behavior/attitudes)

_____ _____
(of whom) (with what specific results)

_____.
(by when)

Objectives related to the goal statement on mainstreaming might include the following:

1) Increase the knowledge of particular aspects of the vocational education programs of 50% of the parents with handicapped students in _____ school or _____ school system during School Year 19__-19__.

2) Increase the awareness of employment opportunities available for handicapped students among 80% of the vocational education teachers in _____ school or _____ school system during School Year 19__-19__.

3) Increase competencies and skills of vocational education teachers related to two specific areas of classroom instruction of handicapped students for 80% of the vocational education teachers by January 1, 19__.

The outcome objectives include all of the elements found in the sample structure: (a) an action verb; (b) the behaviors or attitudes that are to be influenced; (c) whose behavior and attitudes are to be influenced; (d) what results are expected; and (e) in what time frame.

The following list of verbs are examples of those which can be used in writing objectives. You may find them helpful.

Verbs commonly used with objectives	
prepare	change
develop	increase
involve	improve
inform	prevent
access	reduce
stimulate	decrease

The major distinction between goals and objectives is that goals show a general intent and direction while objectives provide specific intentions with measurable indices and time limits.

Strategies

The local planning committee can assist in writing your mainstreaming goals and objectives. The output from the nominal group process meeting will provide an indication of those areas for which objectives need to be developed. Once the overall goal or goals and objectives have been established, specific strategies should be designed to meet designated objectives.

It is helpful to generate several strategies to meet your objectives so that you can compare the potential effectiveness of different strategies. A rule of thumb to follow in developing alternative strategies is to generate at least three strategies to accomplish similar objectives. A strategy or set of strategies may be designed to meet one objective or several objectives.

A strategy is a course of action you choose to take in order to meet a specified objective. But, you may ask, how do you develop strategies?

There are many ways to develop strategies. You can: (1) use your experience and/or the experience of others. However, you must be careful with this procedure because what you have done in the past may not be

the most effective way of meeting present needs; (2) research the literature for articles and books which describe programs which are attempting to meet needs and problems which are similar to yours. Other school systems in your state and around the country have been grappling with the problem of how to provide services to handicapped populations in the least restrictive educational settings. Some of the approaches others have taken may be applicable to your particular situation; (3) ask the consumers or potential consumers (handicapped students and their parents) of vocational education programs for suggestions concerning strategies for delivering services. Consumers may provide you with some interesting and innovative ideas; additionally, they may pinpoint areas that require major emphasis in order for your strategy to be successful; (4) consider input from other program areas that share, to some degree, the goals and objectives of your mainstreaming program; and, (5) brainstorm to develop techniques with your staff.

No matter what procedure or combination of procedures you decide to use in developing your strategies, you should attempt to create at least three alternative strategies for each objective in order to make comparisons between/among them. The local planning committee members should be involved throughout the strategy development process. Their continuous involvement will help insure that the developed strategies are practical and "do-able." Further, members of the local planning committee will have primary responsibility for explaining the strategies to other staff and school personnel as well as responsibility for soliciting continuing cooperation and support in the implementation of the strategies.

As an example of strategy creation, let's take one of the three objective statements that were presented earlier in this section and develop three alternative strategies for meeting the objective. Comparisons can then be made between them.

Below are presented three alternative strategies to meet the objective, "Increase the knowledge of particular aspects of the vocational education programs of 50% of the parents of the handicapped students in _____ school or _____ school system during the School Year 19__-19__."

Alternative Strategy No. 1: Develop a short, attractive booklet or brochure that defines the purposes and objectives of vocational education and explains the programs and courses offered at the high school in each of the vocational curriculum areas. The booklet could be disseminated to all parents of handicapped children in the school system as well as to agencies in the community serving the handicapped. Information in the booklet should include followup procedures and names of persons to contact for more information.

Alternative Strategy No. 2: A special evening meeting sponsored by the vocational education program could be held. Personal invitations could be sent to parents of handicapped students to encourage their attendance and participation. Particular efforts should be made to contact representatives of local groups concerned with the handicapped (for example, the Association for Retarded Citizens, the Association for Children with Learning Disabilities, etc.) to encourage their attendance and participation at the meeting. Additionally, publicity activities through local radio stations and newspapers could be conducted. A special program could be offered in the Fall of the school year and again in the Spring of the school year.

Alternative Strategy No. 3: From information available through the Office of the Director of Special Education Services, a list of handicapped students and their parents could be obtained. A certified letter could be sent to each set of parents requesting their permission for someone to visit the family to discuss the vocational education programs available in the school or school system. Appointments could be made with those parents who indicate that they would like to participate in such a discussion. Teachers could meet with parents at a time and place convenient to parents in order to share with them information on the vocational education programs. This strategy would emphasize direct contact between teachers and parents and require school appointments and/or home visitations.

Your next task is to choose the strategy that will return the best dividends for your invested time and money.

IV. STRATEGY SELECTION

Selection of a strategy is one of the most important decisions you will make in the planning process. Successful strategy selection is dependent on the thoroughness and comprehensiveness of your needs assessment, the relevance of your goals and objectives, and the decision-making process you have employed in arriving at a final selection. In other words, if you have done a good job in each of the previous stages up to this one, then you have greatly increased the probability of making a good selection.

The general planning model depicted in Fig. 4 indicates that the step entitled "Selection of a Specific Strategy" involves the application of several sets of criteria to the alternate strategies. These sets of criteria include: (a) constraints and resources; (b) general selection criteria; (c) costs; and (d) outcomes--anticipated and unanticipated.

Criteria for Strategy Selection

Constraints and Resources: The Reasonableness Criterion

Constraints and resources are one set of reality factors which you must bear in mind while you develop objectives and alternative strategies and as you select among alternative strategies. Constraints are those factors that limit your program's ability to achieve the desired goals and objectives. Resources are those factors that support your program and increase the ability of your program to achieve the desired objectives. Consideration of constraints and resources will assist you in developing realistic objectives and in creating and selecting practical strategies to meet those objectives.

Examination of the sample objective presented in Chapter III will reveal examples of constraints and resources as well as an indication of the influence such factors might exert on the accomplishment of the objective. As you will recall, the sample objective was:

> Increase the knowledge of particular aspects of the vocational education programs of 50% of the parents with handicapped students in _____ school or _____ school system during School Year 19__-19__.

Constraints that might influence the accomplishment of this objective include such items as available budget; level of staff interest; attitudes of staff and students; interest, concern and attitude of parents of handicapped students; public image of vocational education; and the tradition of parent-school interaction. Resources that might influence the accomplishment of this objective include such items as available budget, administrative support for addressing this objective and enthusiasm expressed by some parents who want more information about vocational education programs.

You will notice that budget support is listed under both constraints and resources since it serves simultaneously to limit and to support accomplishment of this objective. For example, budget support is limiting because, if you had more funds available, you might try to increase the quantity and quality of services delivered; however, even without additional funds, budget support allows you to initiate activity to meet a portion of the need, although perhaps not all of it.

A similar application of constraints and resources must be applied to the alternative strategies in the decision-making process. Alternative strategy No. 1, the booklet/brochure describing the vocational programs, would be influenced by constraints such as budget as it relates to printing costs and distribution, staff skills related to preparation of the booklet, parent interest as it relates to digesting the materials and school personnel/parent interest and willingness to follow-up on activities. Resources related to alternative strategy No. 1 might include enough money to produce a flier/brochure but not a multi-color, multi-page booklet; a staff public relations officer and photographer; and a core group of local parents who will coordinate the dissemination activity. Similar inspection of constraints and resources provides clues to the practicality and feasibility of each possible alternative strategy.

In planning objectives and strategies, it is important to consider constraints and resources because, if you can identify them and make some accurate prediction about their possible effect, then you can plan how to deal with and/or utilize the mix of each. You may find it helpful to group constraints and resources into categories that make the task of strategy

selection more manageable. Generally, constraints and resources can be of four different types: fiscal, physical, attitudinal and manpower. Note the examples of such categorization in Fig. 5, based on the example objective and alternative strategies.

There will be few times when all items fit into the resources or the constraints category. Generally, you will have to work with a mixture of both constraints and resources, many of which will be reasonable, if not appropriate. You must create ways of matching/overcoming constraints with other resources. For example, inadequate funding can be minimized by

	CONSTRAINTS	RESOURCES
FISCAL	- Lack of money to implement any alternative strategy completely	- Adequate funds to perform amended strategy
PHYSICAL	- Lack of in-house equipment to prepare booklet - Poor facilities - Not enough space for large meetings	- Some equipment for producing a flier - Adequate facilities with sufficient space for a series of smaller meetings or conferences
ATTITUDINAL	- Staff resistance to new ideas - Consumers reluctant to participate	- Staff enthusiasm and willingness to expand vocational education is high - Community support of a core group is good
MANPOWER	- Staff not trained to interact with parents	- Skilled manpower available - Large number of volunteers available

Fig. 5. Matrix of Types of Constraints and Resources

creative use of existing manpower especially where a staff is willing to change roles in order to accomplish objectives. Lack of facilities can be overcome by making your program more mobile within the community or by collaborating with other agencies which have excess space but may be lacking in other resources. Once you have identified your constraints and resources you can constructively plan how to incorporate the "mix" of them into an effective program.

The depiction of constraints and resources (Fig. 5) suggests that none of the three alternative strategies is entirely manageable or without some drawbacks. However, adaptations of each of the three alternatives could be implemented. Applications of these types of considerations demonstrate the first selection criterion you must apply in making your choice of the most appropriate strategies. This consideration is the "reasonableness" criterion. The "reasonableness" criterion is simply the question: "Would we be able to do this?" or "Is the necessary money, manpower, and space available or can it be made available? Will cooperating agencies and potential consumers be receptive?" All three alternative strategies score well on the reasonableness criterion, with alternative No. 2, the schoolwide meetings, perhaps being the most reasonable.

Congruence Between Goals, Objectives and Potential Strategy Effect: The Criterion of How Well the Strategy Meets the Objective

A second set of reality factors which you must keep in mind as you develop objectives and create/select strategies is the degree to which each strategy will meet the specified objectives. Given the specified constraints and resources, which of the three alternative strategies that have been suggested to accomplish the objective of increasing parents' knowledge of vocational education programs do you think would be the most effective, given budget limitations and other constraints and resources?

Strategy No. 1, the booklet approach, is not quite within the limitations of the budget. It represents a low key approach in terms of interaction with the parents, and is basically an information dissemination activity. This approach may have signifcant impact on 10% -25% of the parents.

Strategy No. 2, the semi-annual parent meeting approach, is within the budget limitations since it would be a limited evening workshop program, conducted once or twice during the school year. An important aspect of this strategy is timing; because you could choose only one or two nights to conduct the meetings, careful scheduling would be critical. It is unlikely that this strategy would have major impact on the total number of parents of handicapped students. More than likely, this type of a workshop meeting would draw those parents who are the most knowledgeable of school system services already and/or are the most articulate in terms of the needs of their children. This approach might have a significant impact on 10% to 25% of the parents.

It might be possible to combine strategies 1 and 2 and have a mail-out to precede the meetings during the school year, particularly for those parents who are most interested in the vocational education program opportunities for their children and wish to follow it up with more in-depth discussion.

Strategy No. 3, the individual parent-teacher meeting approach, would be the most expensive strategy to develop and would exceed the available budget. Providing release time or compensatory time to vocational education teachers while they conduct home visitations to discuss vocational education programs with parents and/or providing this time during the school day so that teachers would be free to meet with parents who wanted to come into the school for an interview would require both manpower and money resources. This strategy, however, could potentially reach all of the parents of handicapped students in the school or school system, and provide for both knowledge acquisition and personal contact.

The third alternative is probably the best alternative in terms of the criterion of how well the strategy meets the specified objective.

Cost Criterion

Cost is another criterion which must be considered in making a selection among alternative, competing strategies. Costs impact on the

decision in at least two ways. First, costs can be prohibitive for certain alternatives, or at least require severe modifications of the original work effort. Second, costs must always be compared to expected benefits in order to decide upon/justify proposed expenditures. For the three proposed alternative strategies, alternative number 3, home visitation of parents of handicapped students, might be rendered impractical due to overall cost. Alternative number 1, the distribution of descriptive booklets to parents of handicapped children, stretches the budget to the limit. Only alternative number 2 is clearly within the budget without reorganizing resources.

Application of cost-benefit thinking further clarifies the issue. Alternative number 1 not only extends the budget limitations, but does so while impacting on only from 10% to 25% of the parents. Alternative number 2 is within the budget, but impacts on only 10% to 25% of the parents --and probably the same parents who would be reached under alternative number 1. Alternative number 3 exceeds the budget, but does so while impacting on 100% of the parents. This means that <u>if</u> the cost overruns for alternative number 3 are not too great or if some adaptation of this strategy that provides comparable benefits at a reduced price can be found, the cost-benefit criterion favors the third alternative.

General Criteria

The last set of selection criteria is a grouping of several items, combined in a category entitled general selection criteria. These criteria include (a) program philosophy, (b) usefulness over time, and (c) unanticipated consequences.

Explicitly and implicitly, the philosophy of your program functions as a general criterion for strategy selection because it provides a general orientation, approach and direction. Some programs do not have clearly anticulated statements of their philosophy. If your program does not have one, we strongly suggest that you develop a statement of your program's philosophy. Such a statement can be a very helpful guideline in the strategy selection process.

Another general criterion item which should be given consideration is the usefulness of the strategy over time. Some strategies may be quite

beneficial in the short run, but decline in usefulness in the long run. Effort, time and resources must be balanced among strategies that meet immediate needs and provide for long-term dividends. Large "start-up" expenses cannot be tolerated for a program that produces decreasing long-term dividends.

Closely related to the item of usefulness over time is the criterion of unanticipated consequences. Obviously, you will concentrate on identifying anticipated consequences in thinking through the cost-benefit selection criterion. Unanticipated consequences, however, require some additional attention. These are the by-products of program efforts and may be either positive or negative. Often, such by-products will be concentrated in areas of knowledge expansion, favorable attitudes and commitment. In terms of the three suggested alternative strategies, only the third strategy is likely to produce a number of useful, unanticipated consequences. More specifically, the third strategy will probably meet the specified objective at the same time it: (a) improves the image of the program in the eyes of the parents; (b) increases the knowledge of the overall vocational program and parent interaction skills of vocational teachers; and (c) increases the commitment of the teachers to the program because of their time investments and public support of programmatic efforts.

Consideration of each alternative strategy as well as the selection of a particular strategy is a difficult task. We suggest you involve the local planning committee in both of these processes. A particular strategy that the local planning committee could use in evaluating alternative strategies is a technique called Force Field Analysis (FFA).

Process for Strategy Selection

The Force Field Analysis technique is a structured discussion of a particular problem. It is similar to the nominal group technique process in that it works particularly well with approximately seven people per group and requires a group leader/recorder who records group responses on a flip chart with a marker pencil. Unlike the nominal group technique

process, however, Force Field Analysis focuses on goal statements, objectives or potential strategies rather than the generation of needs and barrier statements; additionally, it requires less time to implement.

Force Field Analysis means identifying/analyzing the forces that support or tend to facilitate accomplishment of a goal, objective or strategy, as well as identifying/analyzing the forces that inhibit or tend to work against accomplishment of a goal, objective or strategy. The data on forces exist in the minds of members of the local planning committee involved in the mainstreaming effort; you can get the data through a carefully structured response session. The process involves: (a) reminding the task group of the identified need or barrier; (b) translating that need or barrier into a goal statement, an objective and/or a set of strategies; (c) asking the group to produce a list of "forces for" and "forces against" the accomplishment of each presented item. Generally it is easier to identify "forces against" so special emphasis should be placed on generating ideas concerning "forces for." As responses are generated, you, as group leader and recorder, should note each response on a flip chart located in front of the group. An example of how outcomes of this process might look is presented in Fig. 6. Note that the example uses the objective statement developed earlier. Identical procedures can be followed for each objective and alternative strategy.

Use of the Force Field Analysis technique and involvement of the local planning committee in the process has a number of advantages in the strategy selection process including the following:

1) Activity involves those affected by mainstreaming in determining the strategies to be employed;
2) Fosters commitment among group toward strategies and program;
3) Provides for the most comprehensive elaboration of information concerning the implementation of alternative strategies ... from those directly involved;
4) Suggests additional items useful in adapting and combining alternative strategies into potentially more beneficial strategies;
5) Generates information about committee/staff preferences for various strategies;

6) Provides data potentially useful on how to counter each "forces against" with some combination of "forces for"; and

7) Instructs committee/staff on additional "realities" of the situation.

Strategy selection is a difficult decision and ultimately rests with you as the local director. The four sets of selection criteria, together with the Force Field Analysis technique should assist you in reaching your decisions.

OBJECTIVE: Increase the knowledge of particular aspects of the vocational education programs of 50% of the parents with handicapped students in _____ school or _____ school system during School year 19__-19__.

FORCE FIELD ANALYSIS	
Forces For	Forces Against
1. Requirements for parent participation in federal and state law	1. Teachers and parents are uncomfortable in mutual interaction
2. Embryonic parent organization has been created	2. Lack of responsible person and/or staff capabilities to initiate such a program
3. New materials have been developed at state level	3. No history of parent involvement
4. Local media will provide active coverage	4. The stereotypic image of handicapped students by virtue of past practices
5. Local school system administration supports strongly the notion of parent-teacher interaction.	5. Very limited funds to address issue
	6. Teachers unwilling to share educational/informational responsibilities with parents
	7. Parent and teacher fear of involvement
	8. Lack of proven means to communicate with parent

Fig. 6. Example of Output from Force Field Analysis

V. PLANNING FOR STRATEGY IMPLEMENTATION

Having selected your strategy or set of strategies, you are ready for the next step in the process--implementation. Implementation or the carrying out of the strategy, involves a number of activities including:

1) Working with the local planning committee;
2) Combining strategies, objectives, goals and needs into a program;
3) Identifying needed financial resources;
4) Locating and securing space;
5) Recruiting, hiring, reassigning personnel or responsibilities;
6) Coordinating with other agencies or persons;
7) Obtaining needed support services;
8) Obtaining needed supplies and materials;
9) Informing consumers;
10) Planning for evaluation;
11) Providing necessary background to/for involved parties; and,
12) Initiating activity.

Perhaps the most important of these activities is working with the local planning committee. As you recall, this committee consists of a combination of: (1) yourself; (2) the high school principal; (3) director/coordinator of special education; (4) two regular vocational education teachers; (5) a local advisory council member; (6) a vocational rehabilitation representative; (7) an Employment Security Commission representative; (8) two special education instructors; (9) guidance counselors; and (10) other school personnel whom you consider to be important to the mainstreaming program. The composition must insure that all key school system personnel who will be centrally involved in the implementation of the mainstreaming program are represented.

At the implementation phase, the principal and the classroom instructors become particularly important members of the committee because day-to-day

program responsibilities usually revolve around these personnel and because they have continuing first-hand knowledge of needs and accomplishments.

The committee should not be used as a rubber stamp for proposed ideas; instead, you must continue to incorporate the committee in planning for and undertaking the implementation. Hard work directly applicable to the program should be expected of the committee; further, the products of committee efforts must be utilized in a fashion that reinforces the understanding that the mainstreaming program is a joint effort. Continued involvement will result not only in commitment of committee members to the project, but also in utilization of community contacts and the generation of positive support for the program that can be contagious.

Planning for implementation is both necessary and time consuming. There are few short cuts; however, use of several techniques can strengthen your efforts. In addition to continued use of your local planning committee, your next important task is to organize all the needs assessment and planning information you have generated into a program. This program will incorporate: (a) needs and barriers; (b) program goals; (c) program objectives; (d) selected strategies including what is to be used, by whom, when, how and why; (e) expected outcomes; and (f) means for keeping track of program activities. We suggest that you use the local planning committee, parents and possibly a consultant in drawing up your formal model. Each group should clarify expectations and draw upon personal, practical experience in making a contribution. Program strengths and weaknesses must be explored and addressed.

In conjunction with drawing all the information together as a program model and planning for its implementation, you, as program administrator, may find the use of administrative objectives helpful in planning and implementing the program. Administrative objectives are simply written management plans, employed in your program to indicate what has been done or will be done in terms of program operations. Such plans should include

specification of: (a) what the administrator is to do; (b) with what; (c) by when; (d) toward what ends; and (e) related to what program goal and objective. They serve as an administrative blueprint for program implementation.

A second helpful planning tool you could use in planning the strategy implementation process and in conjunction with administrative objectives is a performance chart or schedule. To construct such a chart, you identify all of the action steps that need to be taken in order to prepare for and implement activity. Each step is viewed in relation to the other in terms of dependence, independence and amount of time needed for completion. Some action steps or activities cannot be completed until a previous step is completed, while others can be done independently. The total amount of time it takes to complete all of your action steps becomes your time line.

Let's take the previously cited goal, objective and alternative strategies and develop a performance chart. The action steps can be derived by examining the selected objectives and chosen strategies in the context of the planning activities listed earlier in this section. Suppose you have chosen to address the objective of increasing knowledge of particular aspects of the vocational education program for 50% of the parents of handicapped students. Further, suppose the strategy you have selected to accomplish this objective is individual parent conferences between vocational teachers and parents of handicapped children. You have overcome the constraint of a limited budget through: (a) using teacher workdays for most of the conferences, and (b) hiring a vocational counselor aide to coordinate the effort. The effort is to be completed before the beginning of the Spring semester in February or a time of seven months. Among the action steps that are involved are the following:

Action Steps

1. By 1 August begin recruiting process and select counselor aide
2. By 1 August initiate paperwork to establish position within personnel
3. By 1 September process selected individual into established personnel position, i.e., assure educational and work experience qualifications, salary, etc.
4. By 15 August decide on teacher workday dates
5. By 1 September provide orientation for involved teachers
6. By 15 September devise scheduling plan in conjunction with aide and teachers
7. By 15 September develop and implement in-service program on teacher responsibilities
8. By 15 September engineer formal teacher release from workday responsibilities with usual administrative/ management functions transferred to aide
9. By 1 October obtain names and pertinent information on parents of handicapped students
10. By 15 October devise parent contact schedule and contact parents
11. By 1 February schedule and conduct conferences
12. By 1 February follow-up on conference with aide debriefing of parents and teachers.

These action steps, transcribed on a time line are depicted in Fig. 7, A Sample Performance Chart. As you can see from this example, Steps 1, 2, 4, 5, and so forth, are separate activities, but can be done at the same time. Steps 3, 6, 7, and so forth cannot be accomplished until Steps 1, 2, 4, and 5 are completed. Although this example is very simple, you can follow this same process in planning for the implementation of very complex strategies. The steps to follow are:

1) Identify the action steps that need to be taken.
2) Determine how they are related to each other--dependent or independent.
3) Estimate a time line for the completion of each action step, and from start to finish.

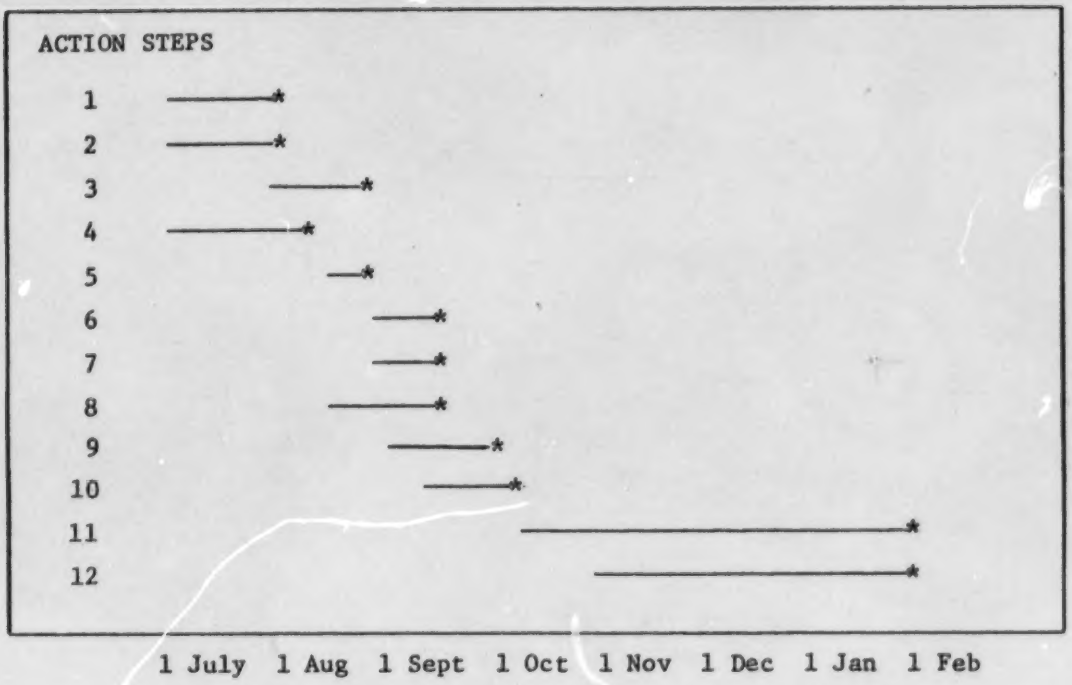

Fig. 7. A Sample Performance Chart

If you combine the Performance Chart and administrative objectives with assignment of responsibilities, time and product expectations to staff, you have created a comprehensive work plan for project implementation.

Planning for strategy/program implementation has a number of positive impacts, some of which are more obvious than others. Among the important effects of planning processes, especially those that actually use a local planning committee, are: (a) a definitive statement of purpose, direction and expectation that clarifies roles, requirements, responsibilities and activities; (b) the collaborative commitment of involved persons to the program; (c) the development of trust between committee members and confidence within individual members with regard to group divisions and individual abilities; (d) individual growth and identity through role development; and (e) group rapport including a forum for continuing group communication.

VI. PLANNING FOR EVALUATION

As you complete your planning for strategy implementation, you must begin one of the most important phases of the planning process, that of evaluation. Evaluation provides you, as a decision-maker, with information about the merit of your plans, the activities you have employed and the results of your intervention strategies. Among the questions a comprehensive evaluation will answer are: Did the strategy work? How well did it work? What contributed most to the success of this strategy? Why did things not go the way you had planned? Was this strategy effective? Why was this strategy not effective? Was the program effective in meeting project goals? What changes should be made in which areas in order to meet objectives more expeditiously?

We recommend that you consider two types of evaluation for your mainstreaming project, process evaluation and product evaluation. Process evaluation involves the day-to-day operation of your program--it helps you to assess whether or not the activities (e.g., parent conferences) and treatments are working (i.e., to increase parental knowledge) on a daily basis as you have planned. To perform such evaluation, you might choose to collect information in the form of teacher conference notes, for example, on a child or a family being interviewed. You might also keep records on the number of parent interviews conducted for the school system on a monthly basis. This is also a form of process evaluation. Information collected for the purpose of process evaluaton can be summarized over time to provide information for the second type of evaluation, called product evaluation.

Whereas process evaluation provides information on a day-to-day basis, product evaluation is a summary of information taken over a longer period of time (for example, six months or one year) that provides information about changes in your target population. Process evaluation focuses more on individuals during a short period of time while product evaluation pertains to groups (target populations) over a longer period of time.

All evaluation, whether it be process or product, should be related to your stated objectives. Evaluation helps you determine to what extent you have met your objectives.

Evaluation functions not only to indicate overall success of the program and/or accomplishment of specified objectives, but also to suggest current progress and immediate program revisions that will enhance the probability of accomplishing program objectives and meeting project goals.

Let's examine the example used earlier in this manual in order to see how process and product evaluation would help us know whether strategies are effective and objectives are being met. As you will recall, the overall goal was to provide "appropriate vocational education experiences for handicapped students in the least restrictive educational setting for the purpose of improving student vocational skills and preparation for employment." The specific objectives included:

1) Increase the knowledge of particular aspects of the vocational education programs of 50% of the parents with handicapped students in _____ school or _____ school system during School Year 19__-19__.

2) Increase the awareness of employment opportunities available for handicapped students among 80% of the vocational education teachers in _____ school or _____ school system during School Year 19__-19__.

3) Increase competencies and skills of vocational education teachers related to two specific areas of classroom instruction of handicapped students for 80% of the vocational education teachers by January 1, 19__.

Alternative strategies were devised for meeting the first of these objectives. The selected strategy among the alternatives was a series of teacher-parent conferences held on teacher workdays and coupled with the employment of a vocational counselor aide to provide release time on workdays and to coordinate scheduling and follow-up activities.

The preparation of an evaluation plan to assess the viability of this strategy and its relation to the specified objective and articulated goal includes the following items:

1) Specification of goal, objective and strategy in product outcome data;
2) Incorporation of time tables, administrative objectives and so forth as process data;
3) Specification of data needs and sources;
4) Preparation of instruments;
5) Development of data collection and sampling form;
6) Decision on data analysis procedures; and
7) Creation of questions/success criteria.

An evaluation plan should be developed for each objective. In some cases, you may be able to develop an evaluation that includes several objectives. Development of a sample plan is depicted in Fig. 8. As noted in the figure, the proposed plan provides for both process and product evaluation. The results of the evaluation effort will provide evidence of strategy and program effectiveness.

In general, there are two different types of measurements that can be used with various target groups--standardized and non-standardized. Standardized measures are those instruments that have been normed on some other group and are usually available commercially. Non-standardized measures are usually locally constructed and can provide more useful continuing planning information. However, the use of non-standardized tests often requires additional local effort to assure external agencies, to whom the program may be accountable, that the employed measures were reliable.

The evaluation plan that you develop may involve collecting data at only a few, specific times during the year, or it may involve continuous collection of data. The extent of involvement of the data collection process may vary among staff members. You may choose to employ a staff evaluation person--a person who coordinates all evaluation activity, and

GOAL: Provide appropriate vocational education experiences for handicapped students in the least restrictive educational setting for the purposes of improving student vocational skills and preparation for employment.

OBJECTIVE: Increase the knowledge of particular aspects of vocational education programs of 50% of the parents of handicapped students.

STRATEGY: Parent-Teacher Conferences

	Time Schedule	Data Needs Data Sources	Instruments	Data Collection/ Sampling Plans	Success Criteria
Process Evaluation: - Conference Scheduling Progress	September 15	- Numbers of parent conferences scheduled - Numbers of parents contacted - Number eligible by teacher	Teacher logs and log of vocational counselor aide	Inspection of counselor aide log and a sample of 3 teacher logs, selected randomly	- 30% of the eligible parents for each teacher should have been contacted and scheduled
- Pilot Survey of Parent Awareness	November	- Parent knowledge about program and reaction to conferences	Locally constructed Parent Awareness interview	Phone survey of 15 parents selected randomly	- 60% of the parents interviewed must respond acceptably and favorably
Product Evaluation: - Survey of Parent Awareness	February (End of Month 7)	- Parent knowledge about vocational program - Parent attitude toward vocational program - Parent reaction to conferences	Locally constructed Parent Awareness interview	Phone survey of a random sample of 75% of the parents of handicapped students	- Have at least 75% of the parents interviewed been able to respond to an acceptable level on the majority of questions on the interview guide?
	February (End of Month 7)	- Numbers of parents eligible and met with - Teacher logs, central office records, and counselor aide log	Frequency count and percentage of numbers of parents eligible & involved in conferences	Inspection of teacher records, log of vocational counselor aide and central office records	- Have at least 85% of the parents eligible for a parent-teacher conference participated in such a conference?

Fig. 8. A Sample Evaluation Plan

prepares periodic reports. You may have a person who has part but not all of their job description as a program evaluator. You might also hire an outside consultant to do your program evaluation as a third party evaluator. This procedure has gained increasing favor, especially when the third party evaluator can be used as an ongoing program consultant. Yet another alternative you might choose would be to delegate evaluation responsibilities to a special interest group such as a parent group. Still another approach would be to use some combination of these approaches to perform evaluation. For example, an evaluation coordinator could be employed who would solicit input from parent organizations and opinions from outside consultants who have reviewed the program. This provides a good mix of opinions from qualified and interested persons who represent different perspectives. The use of an evaluation coordinator provides assurance that the evaluation will be performed and that the information will be applicable to program administration.

You must remember that an evaluation program will require some time from everyone involved with the project in addition to the time of the persons responsible for directing the evaluation. We recommend that you assign staff time to evaluation in order to encourage cooperation and coordination.

No matter how you approach evaluation, it is important that you have an evaluation plan developed, and that it relates directly to your program objectives. You must know how you plan to evaluate and what data you intend to collect before you implement your intervention strategies. Too many programs fail to do this, and find themselves at the end of the year writing a "patched-up" evaluation report, which usually raises more questions for you as a decision-maker than it answers! Several additional suggestions are offered to assist you in developing and performing good program evaluation.

First, we recommend that as you develop your evaluation plan, you develop, explore and choose alternative evaluation strategies in a manner that is highly similar to the strategy selection process described in

Chapter IV. The same strategy selection criteria that applied to program strategies also apply to evaluation approaches. Of particular concern are the criteria of cost and how well the approaches meet your evaluation needs. Costs can be particularly prohibitive; evaluation costs should be included as an essential item in the budget preparation of any program. It is difficult to suggest dollar amounts and/or percentages of the total cost of the program that should be allocated for evaluation purposes; however, reports from directors of a number of vocational education research and demonstration projects suggest that evaluation budgets often range from 4% to 13% of the total project cost.

Another important selection criterion for evaluation approaches is how well the alternative approaches meet your evaluation needs and the types of unanticipated effects/consequences each approach might have. You must avoid approaches that would create unfavorable repercussions. For example, data collection that is overly burdensome on your staff may create feelings of resentment and lead to lack of acceptance of the evaluation findings. Fortunately, many evaluation approaches have positive by-products that can be used to the advantage of the program. People naturally like to know about their success. Your staff will be no different. Evaluation often identifies factors contributing to success which no one expected had very much importance in program operation.

Another concern of program evaluation is the development and maintenance of information. You must treat all information with discretion, not only because of the legal stipulations of the privacy and open records laws, but also because indiscriminate use and/or indiscrete release of information can have damaging effects on your program. We recommend that you set up a data file with procedures for information access to deal with this issue. Among the possible items to consider in creating a data file are:

1) Location: Locate all records centrally within the school for that particular school year, and in a central respository for past years;
2) User Assistance: Provide technical assistance to data file users; e.g., translate technical language into "plain English" for parents;

3) Access: Follow all due process and information release guidelines of the State Department of Public Instruction;

4) Number: Create two sets of files--one for each individual student and one for aggregated data; e.g., by grade level and/or handicapping condition;

5) File Organization: Organize information according to goals; within each goal, organize information according to objectives; within each objective, organization information according to strategies;

6) File References: Establish a set of easy-reference baseline data which can be retrieved for quick comparisons;

7) Type of Data: Collect, process and store process evaluation data systematically so that applicable portions of it can be combined, with little effort, into data for product evaluation; and,

8) User News: Provide information updates to staff who need to know what information is available, how to access it and how to use the data.

Before you begin to develop your evaluation plan, you may want to review educational evaluation procedures in more detail than we have provided in this brief discussion. If so, we suggest that you examine the CIPP model. The CIPP model assesses context and input as well as process and product, and provides for formative and summative evaluation. The CIPP and similar models are concerned with providing information for decision-making, i.e., useful for program administrators.

VII. SUMMARY

This manual is intended to assist you, the local vocational education administrator, to plan for and implement the mainstreaming of handicapped students into regular vocational education classrooms. The manual provides instructions on a five-step planning process: (a) needs assessment and barrier identification; (b) goal, objective and strategy development; (c) strategy selection; (d) planning for strategy implementation; and (e) planning for evaluation. Further, the manual traces the development of a single goal, objective and strategy through each of the planning processes. You should remember that each step of the overall planning process involves use of and coordination with a local planning committee. Membership on the local planning committee should include all key school and school system personnel who will be involved with and/or affected by the mainstreaming program.

Among the benefits of the proposed planning exercises are: (a) the involvement and commitment of key school system personnel who will have responsibilities for and/or be affected by the mainstreaming program; (b) identification and consideration of the entire range of factors that will or are likely to impact on the program; (c) development of a systematic plan for action, useful internally and externally with regard to program implementation; (d) a clear presentation of roles, responsibilities and expectations concerning the program; and (e) a comprehensive, systematic procedure that can be used for future educational program development.

It is appropriate to caution you about possible problems associated with any systematic planning process in order that you avoid the pitfalls. These potential difficulties include the following:

1) There is a tendency to display the goals, objectives and strategies of planning without drawing a tight relationship between such statements and school budget allocations.

2) Planning does not predict the future; it only permits you to envision what you will need and what you can logically strive toward if you carry your objectives through to the end result.

3) Planning can inhibit program flexibility if process evaluation feedback is not taken into consideration.

4) Sometimes concern for primary objectives thoroughly dominates secondary, unexpected and highly positive by-products that can be used to accomplish major objectives and/or may be of sufficient quality to justify program continuation.

We urge you to avoid these pitfalls. These problems, however, are not nearly as critical as the problems created when program planning is ignored or conducted haphazardly.

REFERENCES

Council for Exceptional Children. "What Is Mainstreaming?" Exceptional Children, 1975, 42, 174.

Delbecq, A. L., A. H. Van de Ven and D. H. Gustafson. Group Techniques for Program Planning. Glenview, Illinois: Scott Foresman and Co., 1975.

Educating All the Handicapped: What the Laws Say and What Schools Are Doing. Arlington, Virginia: National School Public Relations Association, 1977.

Gallagher, J. J., R. C. Surles and A. E. Hayes. Program Planning and Evaluation. Chapel Hill, N.C.: Technical Assistance Development System, 1973.

Lewin, K. Field Theory in Social Science. New York: Harper, 1951.

Paul, J. L., A. P. Turnbull and W. M. Cruickshank. Mainstreaming: A Practical Guide. Syracuse, N.Y.: Syracuse University Press, 1977.

Struening, E. L., and M. Guttenlag (Eds.). Handbook of Evaluation Research, Vols. I & II. Beverly Hills, California: Sage Publications, 1975.

Stufflebeam, D. Relevance of the CIPP model for educational accountability. Journal of Research and Development in Education, 1971, 5, 19-25.

Appendix A

AN OVERVIEW OF MAINSTREAMING

Authors' Note: There are a number of references available which provide information on mainstreaming which are particularly useful for introducing the topic to teachers and other school personnel for the first time. A number of these references are included in Appendix B. To provide a brief overview of the subject to accompany the manual, we selected the illustrated booklet entitled, "Mainstreaming Handicapped Students into the Regular Classroom," one of a series of five instructional booklets that cover a wide range of aspects dealing with handicapped individuals in vocational education.

Additional booklets are available on a cost recovery basis for $.82 per copy by contacting:

Dr. Stuart E. Schwartz
Department of Special Education
43 Norman Hall
University of Florida
Gainesville, Florida 32611

The titles of the other four booklets in the "Another Step Forward" series are:

- "Characteristics of Handicapped Students"
- "Evaluation and Placement"
- "A System of Management"
- "Architectural Considerations for a Barrier Free Environment"

Mainstreaming Handicapped Students into the Regular Classroom

Another Step Forward...

These booklets were designed to help vocational education teachers and administrators relate more effectively to handicapped students in their classrooms. They were produced as a special project at the University of Florida. These booklets should provide you with valuable information and answer questions you may have about handling the special needs of handicapped students. For additional information, please write: Dr. Stuart E. Schwartz
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43 Norman Hall
Gainesville, Florida 32611

The series of five booklets covers material on a wide-range of aspects dealing with handicapped individuals. The booklets include:

1) Mainstreaming Handicapped Students into the Regular Classroom
2) Characteristics of Handicapped Students
3) Evaluation and Placement
4) A System of Management
5) Architectural Considerations for a Barrier Free Environment

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Here are a few questions to help determine what you already know about teaching handicapped students in your classes.

After reading this booklet, take the test again to evaluate your understanding of the important concepts. The correct answers are given in the back of the booklet.

Indicate whether the following statements are true or false.

_____ 1. Handicapped students are different and need special attention and limited exposure to normal life experiences.

_____ 2. The integration of handicapped individuals into regular education programs and society is referred to as mainstreaming.

_____ 3. The 1968 ammendment of the Vocational Education Act of 1963 earmarked ten percent of the state's vocational education funds to be spent on programming specifically for handicapped pupils.

_____ 4. Mainstreaming advocates the return of all handicapped children in special classes to regular classes.

_____ 5. A provision of the Education For All Children Act is that education be provided in the "least restrictive environment."

_____ 6. Emoloyers may ask questions about a job applicant's handicap and may take this into consideration in hiring procedures.

_____ 7. Community involvement and concern is vital if handicapped people are to take their place in society.

_____ 8. The mainstreaming model calls for upward movement from one level to another only as far as necessary, and downward as quickly as possible.

_____ 9. Mainstreaming creates alternatives that will help teachers serve children with learning or adjustment problems in the regular setting.

_____ 10. Existing buildings don't require remodeling if they are inaccessible to handicapped people.

BLIND

The idea of mainstreaming handicapped students into the regular school program is a new one to many people. After reading this material, you should be more sensitive to the special needs of handicapped learners. You should be able to think of these students in positive terms. Handicapped students **do** create special problems and difficult situations; but teachers face challenging problems in handling normal students as well. You must understand that handicapped individuals are more like their normal peers than different from them. Regardless of the approach you use, individualized education becomes easier if handicapped children are thought of as students first. When this is done, the design of the educational program should center around sound teaching principles that aim at meeting a student's needs, whether or not they are special, regardless of a handicap.

The educational alternatives in the school system should be broad enough to deliver the best possible education to all students, whatever their needs. We realize it would be impossible for every teacher to meet all the special needs, but changes can be made so a greater number of handicapped students ge[illegible]e most appropriate education possible by interacti[illegible] normal students in the regular classroom.

A Brief History

The right of handicapped students to an appropriate education has not always existed. For centuries, people with handicaps had no rights at all. Fortunately the treatment of handicapped individuals has improved significantly through the years.

Early civilizations developed militaristic societies where handicapped people were considered a burden. Only the strongest individuals survived; the others were abandoned and left to die.

In the middle ages the attitude changed from one of neglect to one of ridicule. Handicapped people were considered inferior in every way, and were regarded as oddities

or freaks. Their only apparent value was to perform as clowns and jesters for the entertainment of those more fortunate. Their roles as entertainers earned them food and shelter but did little else to help their situation.

Gradually society's views on the worth of handicapped people improved. The new public attitude caused changes, but not beneficial ones. Because of their handicaps, afflicted people were put away in asylums and monasteries for care and protection. Being locked away from the rest of society only reinforced their feelings of helplessness and their image as burdens.

The Industrial Revolution brought the first efforts towards training handicapped persons because of the growing need for skilled laborers to work in the newly developing industries.

The greatest step in improving conditions for handicapped people came after the World Wars. Thousands of injured war veterans returned home, increasing the handicapped population and bringing a new awareness to the issue of integrating handicapped people into society. A different perspective emerged as society realized that handicapped persons could hold jobs and succeed well at them. Handicapped men were anxious to return to the jobs they held before the war, refusing to be held back by an impairment. Since then, training and instruction for handicapped individuals has increased and continues to do so every year.

Legislation Guarantees Handicapped Individuals An Equal Chance

The right to a free, appropriate education for everyone is recognized by society and quaranteed by federal and state laws. The United States Constitution delegates the responsibility for providing a system of public education to the individual states as they see fit. All fifty states have a public school system created by their legislatures from this power, and all contain provisions for the education of handicapped individuals.

This does not mean that there is a nationwide agreement on the best way to deliver services to handicapped learners. The provisions for educational programs vary greatly from one state to another. Some have affirmative, aggressive policies to insure education for everyone; while others have a more permissive legislation that allows laws to be construed in a way that handicapped pupils receive an inadequate education.

To help you understand the scope of the laws, and how they benefit handicapped people, we have briefly described some of the most important pieces of legislation.

The Vocational Amendments of 1968

Public Law 90-576, also called the Vocational Amendments of 1968, addresses the special needs of handicapped students. The law provides for appropriate vocational education programs for handicapped learners by requiring that at least ten percent of the funds given to states for vocational education be spent on programs specifically designed for handicapped persons.

In addition to setting aside funds for special programs, the law demands greater efforts be made to coordinate agencies and services for handicapped pupils. The law encourages vocational education, special education, and vocational rehabilitation to work as a team to meet the needs of handicapped learners.

The Vocational Amendments of 1968 make special provisions for handicapped students who must be educated apart from their normal peers because of the nature or severity of their condition. While there is a definite need for segregated classes in cases where children cannot be handled effectively in the regular classroom, this placement should be used only when absolutely necessary if handicapped people are to assume normal roles. Placing a child in a class segregated from normal youngsters has recently come under investigation by the education profession and the courts. This is because the alternative of moving students to separate classes for special education has either been ignored in instances where there was a great need for extra assistance, or has been blatantly violated in other cases where children with enormous ability and potential have been held back.

The Education For All Children Act

The most recent piece of legislation influencing the education of handicapped children is Public Law 94-142, the Education for All Handicapped Children Act of 1976. The act states as its purpose, "...To assure that all handicapped children have available to them a free, appropriate public education which emphasizes special education and related services designed to meet their unique needs, to assure that the rights of handicapped children and their parents are protected, to assist state and localities to provide for education of all handicapped children, and to assess and assure the effectiveness of efforts to educate handicapped children."

The far-reaching effects of the law will have an impact on every classroom and school system. Because vocational educators will be affected significantly, it is important that the terms be thoroughly understood.

The law gives each school the task of emphasizing special education. The basic definition of special education is specially designed instruction. The way the instruction is distributed is being strongly debated and will change the most as the full impact of the law is realized. Specialized instruction can be administered many different ways. Teaching can be done in residential institutions and self-contained classes or in the regular school system with trained special instructors working right along with the children. Special education can also be received in the regular classroom if simple changes are made to aid students with handicaps.

The law also demands that an Individualized Education Program, IEP, be developed for each pupil to design the best educational route with his specific abilities, interests, and goals in mind. The IEP is a written statement by representatives from the local education agency, the student's parents, and the student himself that evaluates pre-vocational and vocational skills the pupil has developed through training. After the information is processed, specific short-term goals and future plans for the student can be made.

Another condition of the law is that handicapped individuals receive their education in the least restrictive environment, which in most schools is the classroom. The law

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requires that institutions receiving federal funds guarantee, "...to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped." According to the law, the only acceptable reason for segregating a child in a special classroom is if the degree or nature of the child's handicap inhibits participation in the regular classroom setting.

Title II of Public Law 94-482

Title II of Public Law 94-482 has an impact on the vocational education program by emphasizing non-discriminatory career development for all vocational eduation students regardless of age, sex, race, or handicapping condition. The law focuses on using all the available resources within the school to design realistic vocational training programs suited to the special needs and interests of students. Title II calls for the appointment of a guidance representative to the state and national Vocational Advisory Councils to make certain career guidance is an integral part of vocational education. Effective career guidance should bring students into contact with all kinds of workers and occupational experiences to help them determine their own career objectives. The goal of the law is to improve guidance in vocational education programs.

The Rehabilitation Act of 1973

The Rehabilitation Act of 1973, PL 93-112, encompasses a range of situations relating to handicapped people with implications for educators, employers, and every member of the community. Two sections are of particular importance to vocational education teachers. The first is section 504 which forbids discrimination against any qualified person on the basis of a handicap. The law covers any program or activity receiving federal financial assistance and is essentially the first civil rights law protecting handicapped people.

Section 504 is consistent with previous legislation by requiring education for handicapped persons in the least restrictive environment. Placement decisions about the best setting are to be made by professionals based on several sources of information. Aptitude and achievement tests, teacher recommendations, and the student's physical condition are evaluated with his social background and adaptive behavior to reach the decision. This procedure is necessary by law to insure that the educational needs of handicapped students are met as adequately as those of non-handicapped students.

In accordance with section 504, vocational education classes may not limit the number of handicapped students who are qualified for enrollment. Admission requirements may not include testing procedures which discriminate

against handicapped persons in general, or against a particular type of handicap.

To assure handicapped students of an equal opportunity, the law says that the physical setting of the classes must be accessible to the handicapped students enrolled in them. For instance, if a vocational education classroom is on the third floor of the building and it is impossible to get a wheelchair to that floor, then the classroom facility must be moved to a different location. Facilities used inside the class must be accessible to all students enrolled in the class, or modified until they are.

Vocational educators responsible for the training and placement of handicapped individuals in jobs should be aware that section 504 applies the same non-discriminatory rules to employers as well. A qualified job applicant cannot be discriminated against because of a handicap. People with handicaps are entitled to the same benefits and

services that other employees receive. There must be no bias in job assignment, compensation benefits, salary, or promotional considerations.

To put these requirements into practice, the law requires that new buildings meet certain standards to make them accessible to handicapped people. Existing structures are required to be remodeled only when there is a specific need for a handicapped person to get into the building. A handicapped job applicant cannot be denied a job because the employer's facilities are inaccessible. In cases like this, the employer is required by law to make reasonable accommodations for the handicapped individual so he can apply for the job and compete on an equal basis with the other applicants.

Employers are not permitted to make inquiries about the nature and severity of a handicap. They may only ask questions about an applicant's ability to do the job in question. Once the handicapped person is hired, the employer must make every effort to see that he is allowed to function in the mainstream of the job setting.

These laws serve as a start to bring handicapped individuals into the mainstream of American life, offering them the same opportunities as any citizen, and helping them secure futures as self-reliant members of society.

Responsibility

Though handicapped students have been given the right of a free, appropriate education, the privilege is meaningless without a system to deliver educational programs. Four levels of responsibility work together to coordinate the needs of handicapped learners into systems that can help them the most. They are the federal and state governments, local education agencies, and individual communities themselves.

The federal government is in charge of monitoring the education programs. Though federal monitoring is sometimes viewed as bureaucratic "red tape" or the "strings attached" to funds, the need for it is unquestionable. However, the extent that required procedures affect our educational programs needs to be reviewed from time to time. Governmental assistance with overly stringent rules and regulations impedes progress and works against efforts for improvement.

The state government plays a larger, more direct role in the education of handicapped learners. The funding and guidance of public school programs is the responsibility of the state governments. After reviewing plans submitted by local education agencies, funds are set aside for a broad range of programs to help handicapped pupils throughout the state.

Community involvement has a vital role in helping the handicapped individual make strides towards a better, normal, life. Often the community's role is overlooked, especially in the area of vocational education where input from the community is indispensable. Most handicapped students in vocational education programs will be working in the community after they finish their training. Active participation and encouragement by people in the community is necessary for them to succeed at their jobs and in their new roles in society. Continuing community concern is a right handicapped people deserve and a responsibility every citizen should accept.

Normalization and Risk-Taking

The impact of legisl tion and growing public concern have brought two other ter.ns into view, normalization and risk-taking. Normalization takes into account basic human rights in directing programming. Many implications of the principle are directly important to the vocational education of handicapped learners.

The principle stresses that socialization and impressions of life should be gained through contacts with a normal society rather than one that is not, such as an institution solely for handicapped children. Mainstreaming in the school system is a prime example of the normalization principle in dealing with handicapped individuals.

Along with the idea of normalization, the concept of "dignity of risk" should have a place in the curriculum for handicapped students. There is a basic human dignity that develops from taking risks that is denied handicapped persons when they are over-protected. Handicapped students should be allowed to explore, learn, and face the same experiences as their normal peers.

This attitude is necessary for successful education of handicapped learners in the regular vocational classroom. The provision for normal risk-taking can be accomplished if only necessary, minimal, modifications in the teaching approach and environment are made. Over-compensation for the needs of handicapped students restricts their potential instead of normalizing and increasing their ability.

A Conceptual Model of Mainstreaming

There is no single definition of mainstreaming that covers the full scope of the principle. Simply stated, mainstreaming is the integration of physically and mentally handicapped children into the regular classroom. To be beneficial, placement into appropriate settings must be individually determined and reviewed regularly. Mainstreaming requires the cooperation and involvement of many different groups in the school system. There is no specific mainstreaming approach that will work for every student so the working concept must offer alternatives with a series of progressive levels to meet the diverse needs of handicapped pupils.

Hierarchy of Services for Special Education Programs*

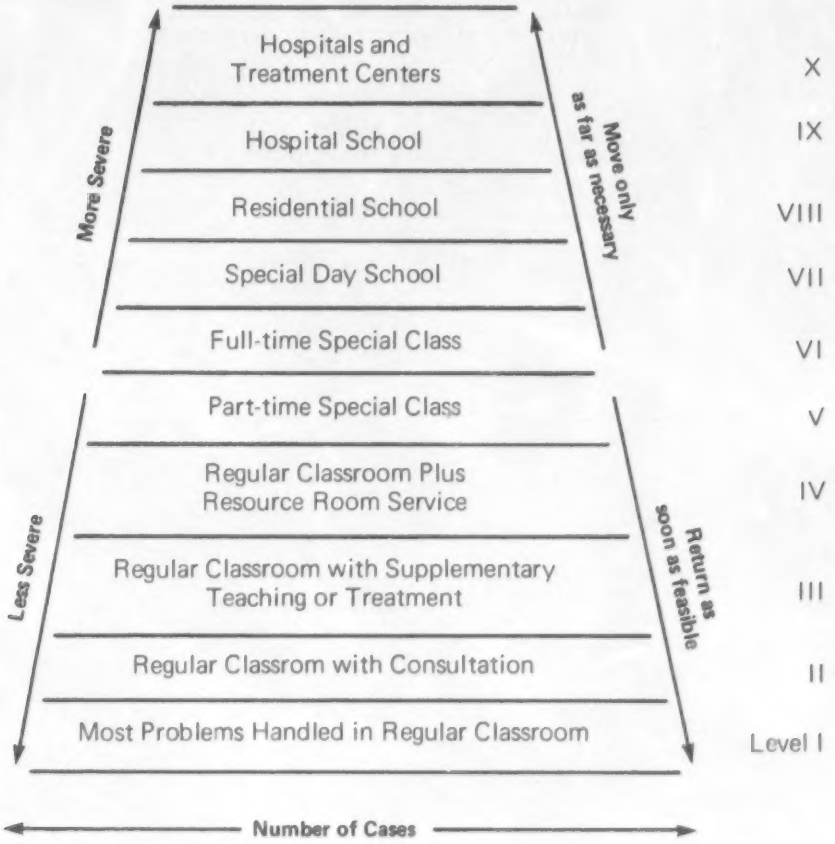

Figure 1

*Adapted from M. C. Reynolds, "A Framework for Considering Some Issues in Special Education" in the March, 1962, issue of *Exceptional Children* (Ex: Kirk).

This conceptual model shows how mainstreaming can be instituted in the school program. The alternatives of the mainstreaming model open many doors to handicapped children. In the past, the practice was to place a handicapped child in a special self-contained class when failure resulted in the regular classroom. This conceptual model illustrates a more effective delivery system of educational services to children with special needs.

The system is flexible, encouraging placement in the least restrictive environment. The goal of the mainstreaming model is to place as many children as possible in the two lower levels. However, this is never done unless it has been determined that the level will meet the student's needs to the fullest so he will make the greatest progress.

In the model, regular vocational education teachers serve a substantial number of handicapped individuals in levels one through five. Level I contains students with mild handicaps and no support services who are taught in the regular classroom. At levels II and III, handicapped pupils are filtered into the program to receive education from regular vocational educators with supplementary services, specially trained personnel, and modifications in the regular curriculum. For children in level IV, the vocational educator is assisted by special education teachers and resource room facilities. The resource room offers a special education teacher and specially designed learning materials to help teach handicapped children. The part-time special class placement at level V calls for a special education teacher to instruct students part of the day in a special class. This placement reinforces learning activities in the regular vocational classroom and should not be isolated from the regular curriculum.

The programs represented in levels five through ten are outside the range of regular education and do not require the services of regular vocational education teachers. The critical point to understand is that this model calls for movement within the system, upward from one level to the next when necessary, and downward to the next lower level as rapidly as possible. Because the goal is for downward movement, it is important that the vocational educator have knowledge of programs in levels six through ten to accommodate those individuals who may have previously been taught outside the regular education system, but are now being mainstreamed into it.

Mainstreaming

To summarize, here is a checklist of what is important to know about mainstreaming.

Mainstreaming:

—provides the most appropriate education for each child in the least restrictive setting.

—focuses on the educational needs of all children instead of placing handicapped children in special schools or self-

contained environments simply because they have been labeled mentally retarded or visually impaired.

—creates alternatives that will help teachers serve children with learning or adjustment problems in the regular setting.

—uses special education teachers, methods and materials specialists, and resource room teachers, to offer handicapped children the extra help they may need.

—unites the skills of general education and special education so that all children may have equal educational opportunity.

Mainstreaming does not:

—advocate the return of all handicapped children in special classes to regular classes.

—permit children with special needs to remain in regular classrooms without the support services that they need.

—ignore some children's needs for a more specialized program than can be provided in the general education program.

—cost less than serving children in special self-contained classrooms.

The outcomes of handicapped pupils who are integrated or mainstreamed into the regular vocational education program differ only slightly from those of non-handicapped individuals. Through a system that provides an appropriate education, handicapped learners will achieve the goals sought by all students—finding suitable employment, becoming self-reliant, and obtaining economic independence.

Bibliography

Ballard, J., Nazzaro, J. N., & Weintraub, F. J. PL 94-142: The education for all handicapped children act. ***American Vocational Journal***, 1976, 51.

Brown, A. T. Integration of trainable students in a regular high school building. ***Education and Training of the Mentally Retarded***, 1976, 11, 51,52.

Coleman, P. B. Severely hearing impaired child in the mainstream. ***Teaching Exceptional Children***, 1975, 8, 6-9.

Dunn, L. M. Special education for the mildly retarded—is much of it justifiable? ***Exceptional Children***, 1968, 35, 11.

Grotsky, J. N., Sabationo, D. A., & Ohrtman, W. F. (Eds.). ***The concept of mainstreaming: A resource guide for regular classroom teachers.*** King of Prussia, Pennsylvania: Eastern Regional Resource Center for Special Education, 1976.

Grzynkowicz, W. ***Meeting the needs of learning disabled children in the regular classroom.*** Springfield, Illinois: Charles C. Thomas, 1974.

Haug, E. F., & Rifkin, L. Organizing shop programs for the handicapped. ***American Vocational Journal***, 1970, 45(4), 37-40.

Kindred, E. M. Integration at the secondary school level. ***Volta Review***, 1976, 78, 35-43.

Martin, E. W. A national committment to the right of the individual—1776-1976. ***Exceptional Children***, 1976, 43(3), 132-135.

Nix, G. W. ***Mainstream education for hearing impaired children and youth.*** New York: Grune & Stratton, 1970.

Pappanikov, A. J., & Paul, J. L. (Eds.). ***Mainstreaming emotionally disturbed children.*** Syracuse, New York: Syracuse University Press, 1977.

Pansanella, A. L., & Volkmor, C. B. ***Mainstreaming children: Coming back... or never leaving.*** Columbus, Ohio: Charles E. Merrill, 1977.

Provisions of the New Vocational Education Amendments. ***American Vocational Journal***, 1976, 51, 33-34.

Sarandoulias, L. Getting handicapped students into the mainstream. ***American Vocational Journal***, 1975, 50(5), 22-25.

Schwartz, L. ***The exceptional child: A primer.*** Belmont, California: Wadsworth, 1975.

Whiteford, E. B., & Anderson, D. H. The mainstreaming of special needs students: Home economics teachers are coping. ***American Vocational Journal***, 1977, 52(5), 42-44.

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Answers: 1) F 2) T 3) T 4) F 5) T 6) F 7) T 8) T 9) T 10) F

This public document was promulgated at a cost of $.82 per copy to provide information for vocational education teachers dealing with handicapped students.

Appendix B

RESOURCES

Appendix B is a list of resources you might find useful in your efforts to develop and to implement a mainstreaming approach. The resources are divided into three sections: (a) Organizations, Institutions and Agencies; (b) Instructional Materials; and (c) Planning Materials. A brief annotation is included on each instructional and planning material.

ORGANIZATIONS, INSTITUTIONS, AGENCIES

The Division for Exceptional Children
N.C. State Department of Public Instruction
Education Building
Raleigh NC 27611

Regional Education Centers

Southeast
612 College Street
Jacksonville NC 28540

Southwest
619 Wall Street
Albermarle NC 28001

Northwest
P.O. Box 1308
North Wilkesboro NC 28659

Western
Patton School
102 Old Clyde Road
Canton NC 28716

Association of Rehabilitiation Facilities
5530 Wisconsin Avenue
Washington DC 20015

Muscular Dystrophy Association
810 Seventh Avenue
New York NY 10019

National Association of the Deaf
814 Thayer Avenue
Silver Spring MD 20910

National Association for Retarded Citizens
2709 Avenue E East
Arlington TX 76011

National Easter Seal Society for Crippled Children and Adults
2023 West Ogden Avenue
Chicago IL 60612

President's Committee on Employment of the Handicapped
1111 20th Street NW
Washington DC 20202

The Division of Vocational Education
N.C. State Department of Public Instruction
Education Building
Raleigh NC 27611

The Council for Exceptional Children
1920 Association Drive
Reston VA 22091

The Division of Vocational Rehabilitation
State Department of Human Resources
Raleigh NC 27611

Closer Look
P.O. Box 1492
Washington DC 20036

Association for Children with Learning Disabilities
5225 Grace Street
Pittsburgh PA 25236

Association for the Aid of Crippled Children
345 East 46th Street
New York NY 10017

National Center on Educational Media and Materials for the Handicapped
The Ohio State University
Columbus OH 43201

National Rehabilitation Association
1522 K Street NW
Washington DC 20005

National Society for Autistic Children
169 Tampa Avenue
Albany NY 12208

United Cerebral Palsy Association, Inc.
66 East 34th Street
New York NY 10016

INSTRUCTIONAL MATERIALS

McClellan, L. Dean, Dennis C. Nystrom and George D. Carroll, III. A Transportable Professional Development Module for Mainstreaming Students into Vocational Education. Louisville KY: University of Louisville, 1977.

This module is designed to help prepare the vocational education teacher to serve handicapped students by better understanding them. Exercises address definitions of handicapping conditions, delivery systems and instructional methods of special education, and an introduction to a diagnostic prescriptive teaching model that relates to individualized instruction.

Weisgerber, Robert A., and Claudette A. Smith. Improving Vocational Education Services for Handicapped Students. Palo Alto CA: American Institutes for Research, 1977.

This project resulted in a series of seven modules, each of which can be beneficial to teachers in developing/implementing a mainstreaming program for the handicapped. The modules include: (1) Developing a General Understanding; (2) Developing a Positive Attitude; (3) Serving the Orthopedically Handicapped; (4) Serving the Visually Impaired; (5) Serving the Mentally Retarded; (6) Serving the Communication Impaired; and (7) Developing a Plan for Action.

Schwartz, S. E. Another Step Forward. (Series of five booklets) Gainesville FL: University of Florida, n.d.

These pamphlets address a number of aspects of working with handicapped students. Issues include: Mainstreaming Handicapped Students into the Regular Classroom; Characteristics of Handicapped Students; Evaluation and Placement; A System of Management; and Architectural Considerations for a Barrier Free Environment.

Meers, G. D. Development and Implementation of Program Models for Assisting Vocational Teachers in Dealing with the Educationally Disadvantaged, Handicapped, and Minorities. Lincoln NB: University of Nebraska-Lincoln, 1977.

This is a planning and delivery model for expanding the pre-service and in-service education services for vocational teachers of the handicapped. It includes a transportable two-day workshop.

Rice, E., and R. M. Etheridge. Development of a New Program Model in New Careers for Handicapped Children and Youth: Communication and Media Cluster. Chapel Hill NC: System Sciences, Inc., 1977.

This project includes student and teacher materials suitable for initiating a comprehensive (grades 1-12) career education project that mainstreams handicapped children. The model includes planning, systemic adaptations, training, support services and evaluation components. This curriculum project has identified 10 cluster and a number of subcluster areas of occupations. These were each subjected to task analysis; curricular materials have been devised around specific tasks related to occupations and include 160 prerequisite skills. The model utilizes a resource room model and requires cooperation between special and vocational education.

Direct Services to Exceptional Children: A Process Model. Division for Exceptional Children. Raleigh NC: State Department of Public Instruction, 1978.

This document describes, in straight-forward fashion, a useful model concerning the identification, screening, assessment, placement, instruction and reassessment of special needs students.

Hull, M. D., O. G. Barry and D. L. Clark. Procedures for Teaching Vocational Concepts to Students with Special Needs. Austin TX: Texas A&M University and the Texas Education Agency, June 1976.

This volume addresses the subject of teaching vocational concept learning to special needs students. It reports on the efficacy of various models for accomplishing this task.

FILMS

"Choices," a film explaining the least restrictive environment provision.

Slide-tape presentation on House Bill 824, North Carolina's mandatory education legislation for the handicapped.

Film-cassette Media Package on P.L. 94-142, the Education of All Handicapped Children Act.

Above materials are available through the Division for Exceptional Children, State Department of Public Instruction, Raleigh NC 27611.

"Implementing Procedural Safeguards: A Guide for Schools and Parents"

"Individualized Education Programs for Handicapped Children"

Above materials are available through the Council for Exceptional Children and the Foundation for Exceptional Children, respectively, 1920 Association Drive, Reston VA 22091.

PLANNING MATERIALS

Dahl, Peter R., Judith A. Appleby and Dewey Lipe. Mainstreaming guidebook for vocational educators. Salt Lake City UT: Olympus Publishing Company, 1978.

This practical guide includes strategies by which vocational educators can help handicapped students. Topics addressed include: Developing Positive Staff and Student Attitudes Towards Mainstreaming; Eliminating Architectural Barriers; Assessing the Individual Handicapped Student; Modifying the Curriculum; Eliminating Equipment and Work Environment Barriers; and, Placing Handicapped Students in Jobs. Descriptions of various handicapping conditions, lists of organizations serving the handicapped, and a detailed model for developing and reviewing individualized educational programming are also included.

Gallagher, James J., Richard C. Surles and Andrew E. Hayes. Program Planning and Evaluation. Chapel Hill NC: Technical Assistance Development System, 1973.

This planning guide presents a concise description of a systematic general planning system. It is particularly applicable to school settings.

Savage, D. G. Educating All The Handicapped: What the Laws Say and What Schools Are Doing. Arlington VA: National School Public Relations Association, 1977.

This general description is a good introduction of current concerns and future directions in providing education for handicapped students.

Planning Guide on Secondary Programs for the Educable Mentally Handicapped. Raleigh NC: State Department of Public Instruction, Division for Exceptional Children and Division of Vocational Education, and State Department of Human Resources, Division of Vocational Rehabilitation Services, n.d.

This document describes a process for the development of cooperative arrangements among the various service agencies charged with providing educational and related experiences for the handicapped, as these experiences relate to vocational education.

Paul, J. L., A. P. Turnbull and W. M. Cruickshank. Mainstreaming: A Practical Guide. Syracuse NY: Syracuse University Press, 1977.

This excellent, brief monograph provides a general description of mainstreaming and addresses many of the issues that must be faced while implementing local projects. It also includes a number of practical, helpful suggestions. It focuses on the school building level, and describes roles and responsibilities for the principal, teachers, parents, and important others.

Delbecq, A. L., A. H. Van de Ven and D. H. Gustafson. Group Techniques for Program Planning. Glenview IL: Scott, Foresman & Co., 1975.

This excellent guide provides a comprehensive explanation of and rationale for using the nominal group technique process and the Delphi procedure. Step-by-step directions and summaries are provided.

Davis, S., and M. Ward. Vocational Education Administrative Policies Manual for Handicapped Students. Reston VA: The Council for Exceptional Children. (In preparation)

This policy description document will be available in the Summer of 1978. The manual will assist local directors in developing policy for vocational programming for handicapped students.

Tindall, L. W. Program Evaluation and Planning for the Vocational Education of Handicapped Students: Secondary, Post-Secondary Articulation. Madison WI: University of Wisconsin-Madison, Vocational Studies Center, 1977.

The project was designed to help handicapped students, ages 14-21, to make the transition between secondary and vocational/technical and adult education in Wisconsin. A process for aiding this transition is described and evaluated.

Kumar, V. Handicapped Persons in Wisconsin's Vocational, Technical, and Adult Education Districts: Assessment of Educational Techniques and Identification of Barriers. Madison WI: University of Wisconsin-Madison, Wisconsin Vocational Studies Center, 1977.

This report presents findings of a Wisconsin assessment of statewide educational techniques and barriers pertaining to the handicapped. The information may prove helpful to local administrators through comparison of derived/perceived barriers and presented findings.

Franken, M. E. Identifying Handicapped Students and Their Vocational Needs for 1977-1982. Madison WI: University of Wisconsin-Madison, Wisconsin Vocational Studies Center, 1977.

This report presents a model for identifying and determining the vocational needs of handicapped students. Cognitive, psychomotor and affective characteristics are addressed.